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CONTENTS: Vol. XLIV. No. 3.

	PAGE		PAGE
Bankruptcy Reports	83	Institute of Chemistry Examination	85
Business Changes	69	Interview with Mrs Anna Rupert	75
Chemical-manufacturers and their Workmen	77	Legal Reports	70
Corner for Students	64	New Books	80
Correspondence	90	New Companies	84
Deaths	73	Next Week	94
Deaths of Arrangement	83	Personalities	69
Editorial Comments:—		Pharmaceutical Society of Great Britain: Examinations in Edinburgh	68
Antipyrin and its Rivals	78	Practical Notes	85
The Rules of Labour in Chemical-works	79	Reviews	35
A Hundred New Remedies ..	79	Scotch News	67
Notes	80	Trade Notes	77
English News	64	Trade Report	86
French Pharmaceutical News ..	63	Winter Session	81
Gazette	84		
Irish News	67		

A FINAL NOTICE.

ADVERTISERS will please note that the next number of THE CHEMIST AND DRUGGIST will be

THE WINTER ISSUE.

We are rapidly completing the final arrangements for it, and part of the number is already printed. The issue affords a splendid opportunity for advertising purposes, but we cannot receive orders or copy for it later than

TUESDAY NEXT, JANUARY 23.

If there are any who can send to us by Monday 11,000 circulars with "Supplement to THE CHEMIST AND DRUGGIST, January 27, 1894," printed on the top of each page, and the size of our page, we can insert them, but they may find it better to give us their order for pages in the issue. Either way our publisher will do his best to meet their wishes if they communicate with him at once. There is no more time to lose.

POSTCARD COMPETITION.

JANUARY 1894.

SUBSCRIBERS, or their assistants, or members of their families, are requested to join in this competition. We ask—

WHAT SIX ARTICLES IN YOUR STOCK ARE MOST
FREQUENTLY ASKED FOR?

The articles named may be drugs, chemicals, drysalteries, galenical preparations, perfumery, sundries, postage-stamps, anything, in fact, sold in chemists' shops.

This will be a most interesting competition if a large

number will join in it. The correspondent who gets nearest to the average will get a guinea. Replies must be on post-cards, and January 31 is the latest date for sending in post-cards.

A guinea for a halfpenny—fifty thousand per cent.

TO CORRESPONDENTS.

CORRESPONDENTS will please note that, owing to our Winter Issue, they should send letters and news-paragraphs a day earlier next week. Letters for publication especially should be sent not later than Tuesday.

Summary.

WE give the names of those who have passed the pharmaceutical examinations at Edinburgh.

A BIRMINGHAM chemist and druggist has been fined for keeping an excessive stock of gunpowder on his premises.

WE report four cases of carbolic-acid poisoning this week. One of these is an accidental case which occurred in Edinburgh.

FOUR chemists' balls have been held in England this week, and, as far as can be gathered from our reports, they have all been brilliant successes.

PROFESSOR ATTFIELD, in the course of an inquiry regarding a xylonite-works fire, gave some important evidence about the properties of xylonite.

A MEETING of the Chemical Section of the London Section Chamber of Commerce has commended generally the new rules for chemical-factories.

Our Editorial note on antipyrin deals with the important questions of dosage and toxicity, which have been investigated by a Therapeutic Committee of the British Medical Council.

THE Chemists' Assistants' Association have completed their resolution about Sunday outings. Compressed drugs and pil. opii gr. j were the chief topics of discussion at the last meeting.

THE Queen's Bench Division has given an interesting decision against an analyst's certificate, on the ground that an analyst's estimate that the proportion of water in rum was too much was too vague to be proper evidence.

IN our Correspondence section there is a discussion on the use of miscible liquors in dispensing; and some letters are also printed on the crystallisation of water, one from a chemist of 90.

THE Glasgow Town Council are taking steps to get the Sale of Food and Drugs Act amended, so that it should not be necessary for the prosecution to prove that an adulteration is injurious to health.

THE last powder which our students had to examine was a mixture of alum, nickel sulphate, and potassium chromate. We give the names of the prize-winners, and reserve the rest of the report until next week.

THE death of Dr. Hasskarl, the German-Dutch botanist who introduced cinchona into Java, is announced. We also regret to report the loss by death of Mr. Samuel Boyd, J.P., Dublin, and Mr. Gibbons, sen., Manchester.

MR. SWIFTE, the Dublin Magistrate, has found Madame Ruppert guilty of technical infringement of the Irish Pharmacy Act, and has imposed a modified penalty of 1*l.* against which the Pharmaceutical Society has appealed. We give notes of an interview with the fair defendant.

MR. PARRY LAWS, a bacteriologist working for the London County Council, has made some important observations which show that sewer air does not contain any micro-organisms which are not found in ordinary air; so that if sewer air is infectious, that character must be due to something which is not vital.



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

QUALITATIVE ANALYSIS.

THE subject of the next exercise in qualitative analysis will be a mixture of not more than three salts. It is to be submitted to a thorough systematic examination, all the constituents of the mixture are to be detected, and proof given that the substances detected are the only constituents.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Wednesday, January 24, and the samples will be forwarded immediately. It should be understood that in this, as in all other competitions, THE CHEMIST AND DRUGGIST recognises no distinction of sex.

Students' reports will be received up to Saturday, February 3. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts of which the mixture is composed.

PRIZES.

The First Prize for the best analysis of the powder last sent out has been awarded to

HAROLD READ, care of Mr. J. L. Newbigin, chemist, Alnwick.

The Second Prize has been awarded to

W. HOOD WANDLESS, care of Messrs. Wilson & Kitchin, 27 King Street, Whitehaven.

MARKS AWARDED FOR ANALYSIS.

H. Read (1st Prize)	100	Godfrey	80
W. H. Wandless (2nd Prize) ..	99	Campanulate	76
Zymine	98	Frango	75
H. Bowden	97	Eblana	75
Cogito	96	Pelican	74
W. W. Adams	96	Phoenix	70
Timothy	95	Vigovina	70
H. B.	95	Golspie	70
Isle of Wight	95	A. Shand	67
Danwer	94	E. Stabler	63
W. G. S.	93	Hopeful	63
Cortex	93	R. H. A.	60
Wren	93	S. R.	57
Perseverance	92	Stanley	55
Iodie Hydrarg.	90	A. W. Latlam	52
Alex. Jones	84	D. W. E.	50
Cono	87	W. Palmer	45
R. B. Carnegie	85	W. T. Blakeley	43
P. Harris	82	Camphor	20

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

A CURE FOR DIPHTHERIA.—Signor Bartolomeo, a chemist of Milan, professes to have discovered a cure for diphtheria. He has laid claim to the award of 50,000f. offered by the French Academy of Science to anyone who can find a remedy for the malady.

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Carbolic-acid Poisoning.

In Newcastle, on January 12, two young women, each 19 years of age, domestic servants, living in different parts of the city, committed suicide by drinking carbolic acid. It is alleged that they had been jilted. At the inquest on Thomas it transpired that the poison was contained in a tin flask. Mr. Matthew Bell, chemist, Shield Street, gave evidence in the case of Elizabeth Ball—she knew her by sight from coming to his shop. On Thursday, between 3 and 4 o'clock, she purchased a bottle of carbolic acid. The bottle contained 8 oz. and was marked "Poison." He told her the charge would be 1s., but she only had 11½d., and said she would owe him the balance. He did not notice anything strange about her.

Dr. Danford Thomas also held an inquest at Hornsey, on Tuesday, on the body of Edith Augusta Showler (32), the daughter of an independent gentleman. She had been suffering from insomnia, and in the extremity of her sorrow committed suicide with carbolic acid.

Jersey Sanitation.

In addition to looking after the restoration to health of the inhabitants of the Channel Islands, by securing the fitness of all who practise medicine and pharmacy there, the Jersey Court also takes prevention of disease under its wing. There was an example of that at the court on Saturday last, when Mr. Percy Adrian Aubin, applied for registration of a certificate of proficiency granted him by the Sanitary Institute of London, empowering him to act as sanitary inspector under the Public Healths Act, also inspector of nuisances, &c., the lieut. bailiff, or presiding magistrate, hesitated before acceding to this request, as it appeared there were no precedents to that effect. Mr. Aubin's counsel, however, urged that veterinary surgeons' certificates had always been registered in the same way; while the mere registration added no value. Mr. Aubin was also, it appeared, the first Jersey sanitary inspector. Eventually the Court granted the request.

About Five Packing-cases.

At the Leicester Magistrates' Court on Saturday, before Messrs. J. G. F. Richardson, G. Oliver, and W. J. Bruin, a jeweller named William Jobson (45) was charged with stealing five packing-cases, valued at 10s. 6d., belonging to Stephen Wand, chemist, 18 Haymarket, his next-door neighbour since December 10. John Harris, warehouseman, in the employ of Mr. Wand, deposed to missing a case and finding it in Jobson's yard. On going into Mr. Jobson's cellar he found one whole tea-chest and part of another which he identified as the property of his employer. Cross examined by Mr. Fowler, witness said there were no particular marks on the boxes by which he could identify them with certainty. Ernest Smith, stockkeeper to Mr. Wand recognised three other boxes produced as being the property of his employer. William Driver, a groom, who has recently been employed by Mr. Jobson, stated that one night about three weeks ago he saw Mr. Jobson coming from the direction of the entry with a packing-case in his arms. On the 3rd inst., prisoner asked witness to fetch a box from the cellar, and wash off the label. One day last week prisoner sent witness to the cellar to clean out a portion of it, and he saw there a box with the name "Wand, chemist," on it. After further evidence Mr. Fowler asked the Bench if he need go on with the defence. He submitted that the whole thing was a persecution.

After consultation with the other Magistrates, the Chairman said the Bench would not trouble him to go further, for they were unanimous that there was no chance of a conviction. These boxes were made by the gross, and sent all over the country, so that particular boxes could not be identified. The Magistrates did not see that there was the slightest evidence to implicate prisoner, so they would dismiss the case.

A Serious Charge Dismissed.

At the Old Bailey on Saturday, Walter Worsdale, 21, clerk, and William Albert Simcock, a chemist's assistant, were indicted for an alleged criminal assault on Kate Hayden, in the second prisoner's father's drug-shop, in Penton Street, Clerkenwell. The particulars of the case have already been reported. Both prisoners denied the charge, and witnesses were called for the defence. In the result the jury gave the accused the benefit of the doubt, and returned a verdict of not guilty.

The Wrong Bottle.

Mrs. Susan Wright was 79, and an inmate of Spurgeon's Almshouses. She was not feeling very well, and asked a neighbour to give her a bottle of medicine from the cupboard. Unfortunately it was acetic acid she gave her, and before the mistake was discovered Mrs. Wright had taken a dose of it. She died at the end of last week. Dr. Thompson, St. Thomas's Hospital, stated that death was due to shock following acetic acid poisoning. The lining-membrane of the stomach was completely corroded.

Spent Ginger

The Norfolk County Council analyst reports having analysed amongst other things, samples of ground ginger during the past quarter, and one sample contained only half its weight of genuine ginger.

Old Men Rest with Poison.

On October 25 last, a Llangollen plumber who wished to end his life drank muriatic acid. He has lingered on since, and died last week. He was 55, and had been drinking.

Samuel Briscoe, approaching the allotted span, found himself one of the unemployed of Acock's Green, Worcestershire. He was also disappointed because his hopes of marrying a lady had been blighted. He owed his landlady 3l. 14s. 6d. In these circumstances Briscoe bought a packet of Battle's Vermin-killer from Mr. Frost, chemist, Acock's Green, signing for it, and swallowed it when he got home. He died of strychnine poisoning.

Mr. W. F. Sheppard (77), grocer, Egloshayle Bridge, had not been feeling well lately. Last week he put an end to his troubles by taking solution of potassium cyanide which had been used for cleaning old curios. He had threatened to commit suicide.

A Petroleum-spring in Somerset.

It is reported that a petroleum spring has been discovered at Athwick, a village in Somersetshire, and Mr. Popley, of the Geological Survey, and Mr. Boverton Redwood are gone to examine it.

Click! went the Chemist's Watch.

Charles Harry Kitching, a chemist, was watching a performance in the Upper Street, Islington, on January 11, when he heard a "click," and, looking down, noticed that his watch had been stolen, and that his chain was hanging down. Two young fellows in the crowd were caught, and next day, at the Clerkenwell Police Court, pleaded guilty, and Mr. Horace Smith sent them each to gaol for three months.

Charity from Toothache-tincture.

The Hon Sec. of the Jersey General Dispensary and Infirmary (the Rev. P. Horton Lefebvre) writes to the local press thanking Mr. A. Hunt, of Conway Street, St. Helier, for the sum of 760 pennies, being the proceeds of a penny levy on each bottle of his "cheap and efficacious cure for toothache" sold during the past few months.

Fertilisers and Feeding-stuffs Act.

Mr. Chas. H. Southwell, Ph.C., F.R.M.S., public analyst for the administrative county of the Parts of Holland, Lincolnshire, has been appointed district agricultural analyst under the Stuffs Act for the same county.

The Gloucester County Council have appointed Mr. G. Embrey, F.C.S., of Gloucester, the analyst for the county, to act as analyst under the Fertilisers and Feeding Stuffs Act, 1893. Mr. Embrey's salary is to be increased from 100l to 150l per year. The Council at the same time adopted a

schedule of fees, half to be paid by the county, and the other half by the persons presenting the sample.

The Northamptonshire County Council have appointed Messrs. Voelcker & Sons to act as district analysts at a fee of 21s. per analysis.

Mr. Frank Sutton, Ph.C., F.I.C., of Norwich, has been appointed to act for the district of Norfolk County Council, the fees to be paid by purchasers for consumption, 2s. 6d. for each article analysed, and by purchasers for sale 1l. 1s. for each analysis.

The Derbyshire County Council have decided to expend 400l. during the forthcoming year under the Act, and the present analysts, Mr. Allen and Mr. Hehner, have been appointed.

Milk Thickened with Starch.

At the fortnightly meeting of the St. Saviour's Board of Works, the public analyst presented his quarterly report under the above Act, up to December last. It stated that no fewer than 42 samples of foods and drugs had been analysed, and that in the case of the latter no case of adulteration had been detected. Several samples of arrowroot had also been tested and found to be pure and of good quality, which remark also applied to some samples of brandy and gin. The worst case of adulteration was in respect of milk, which in one instance was found to have been thickened by the addition of boiled starch and water. The starch not only had the effect of thickening the milk, but also made the presence of the added water less easy of detection.

She Drank the Liniment and Died.

Elizabeth Calnan, aged 25, manageress of the Pocock Arms Tavern, Caledonian Road, Barnsbury, lived with the landlord as his wife, and had been drinking too freely lately. On Sunday she asked the servant for a bottle of an embrocation which she had been using, and left the room, going upstairs. Shortly afterwards it was found the deceased had swallowed some of the liniment, and she expired before the doctor arrived. The liniment contained belladonna.

Carbolic Acid Not an Antidote to Opium.

Dr. Danford Thomas held an inquest at Islington on Tuesday concerning the death of Alice Frances Hawley, 27, a nurse in the London Fever Hospital, Liverpool Road. Evidence showed that deceased had been addicted to the use of narcotics, and on Thursday of last week she had been found unconscious in bed. There was in her room a box containing bottles of laudanum poison, chloral hydrate, and arsenic complexion wafers. Dr. Hopwood, the medical officer, said that the deceased died at 2 P.M. on Friday. After her death a bottle of weak carbolic acid was found in the bed. She had taken some of this before she died, as some persons believed it was an antidote to opium. Death was due to opium poisoning.

Fatality in a Chemical-factory.

There was an accident at the Hardshaw Brook Chemical Works, St. Helens, owned by the United Alkali Company, last week. Four men were working in a new building on a scaffold of planks stretched from girder to girder, about 30 feet from the ground, when one of the supports gave way, and all the men were precipitated to the ground. One died from his injuries within an hour.

The Micro-organisms of Sewer Air.

Mr. J. Parry Laws, who has been working up the question of the contamination of sewer air for the London County Council, has so far completed his experiments as to be able to report to the main-drainage committee of the Council in regard to the matter. During his investigations Mr. Laws has proved conclusively, contrary to general belief, that the micro-organisms of sewer air are almost invariably less in number than the micro-organisms to be found in fresh air surrounding the sewer at the same time in the same vicinity, even when the sewer air is examined under the most varied conditions; they, moreover, prove that the micro-organisms of sewer air are related to the micro-organisms of fresh air, and not to those of sewage. Although one is led almost irresistibly to the conclusion that the micro-organisms in sewer air do not constitute any source of danger, it is impossible to ignore the evidence, though it be only circumstantial, that sewer air in some instances has apparently had some

causal relation to zymotic disease. It is quite conceivable, though at present no evidence is forthcoming, that the danger of sewer air causing disease is an indirect one; it may contain some highly poisonous chemical substance possibly of an alkaloidal nature, which, though present in but minute quantities, may nevertheless produce, in conjunction with the large excess of carbonic acid, a profound effect upon the general vitality. The committee have asked Mr. Laws and the chemist of the Council to suggest what further experiments should be made.

English Patients at the Pasteur Institute.

Percy Overton, son of Mr. Overton, principal of the firm of R. Sumner & Co., Liverpool, had the misfortune to be bitten by a mad dog recently, while sitting in his garden at Wavertree. Four other persons were bitten, and the whole of them, acting on the advice of Professor Burron and Dr. Dreschfield, of Liverpool, have gone to be treated at the Pasteur Institute, Paris. Mr. Overton accompanied his boy, and Mrs. Crawford, the Paris representative of the *Daily News*, interviewed him one day last week. Mr. Overton told her that the misadventure had brought home to him in a way he could never have realised before the need of a Pasteur Institute in London. "Here is a thing," he remarked, "that might happen to anyone. See the consequences in my case. Apart from all loss of business resulting from a fortnight's absence, this journey to Paris will cost me, at the lowest estimate, 100*l*. Of course, we two could have come over with comfort, but I left with great anxiety on account of the four boys, who were dependent upon the bounty of the neighbourhood. The thing was so appalling that I felt overwhelmed. But the statistics are very reassuring, and I am getting out of my trouble. The death-rate under the treatment is surprisingly small, and the knowledge of that is worth everything to me. The fear of impending danger to the boys would have been like a ghost for twelve months. The two Liverpool pathologists impressed upon me that the treatment was perfectly harmless and effective. What more can you have? There is a great *furor* in the town, and the magistrates have issued stringent muzzling-orders." Mrs. Crawford describes the operation, and how the five patients—four of them under 14—bore it. Young Overton, who is 11, though evidently a high-strung, sensitive lad, and a little pale, behaved like a man. His father had told him that no English boy had ever been known by the French to cry; but he told his father pathetically the first time he got the injection that he would never be able to go through the whole treatment. He has not complained since.

Smoke from Chemical-works.

On Tuesday, at the Northwich Petty Sessions, Messrs. Bowman, Thompson & Co. (Limited), chemical-manufacturers, Lostock Gralam, near Northwich, were summoned by the Northwich Rural Sanitary Authority for breach of an order made upon them in April, 1892, for the abatement of a nuisance caused by the emission of black smoke. They were charged under a summons that on thirty days dense black smoke was allowed to issue from the chimney of their chemical-works. Evidence having been given, the manager of the works said they were doing all they could to abate the nuisance. Patent stokers were being fitted, but owing to the enormous amount of work the patentee had in hand they had only been able to obtain six. A penalty of 10*s*. a day for twenty-five days—12*l*. 10*s*.—was imposed.

An Undesirable Neighbour.

At the Law Courts on Monday before Justices Mathew and Collins sitting as a Divisional Court, Mr. Edward Pollock applied on behalf of the plaintiff in the case of *Goddon v. Bailey* for an injunction to restrain the defendant from committing a breach of an agreement. The learned counsel stated that his client was a chemist carrying on business in the Westminster Bridge Road, and the defendant was a photographer. The act complained of was that Mr. Bailey had employed a person to shout and solicit passers-by to have their photographs taken, whereas he was only entitled under the agreement to canvass by the handing of circulars at the door. The conduct of Mr. Bailey interfered with the plaintiff's business as a chemist. The Court granted the injunction.

Arsenic in Glycerine.

The report of Mr. T. Fairley, public analyst for Leeds, on samples analysed by him during the December quarter, 1893, says that out of eight samples of glycerine analysed, five were found to contain appreciable quantities of the irritant poison arsenic.

On the Way to the Opera.

At the Workington Police Court on Wednesday, Wm. Bowness, chemist, was charged with having, on January 8, wilfully broken two windows of a 'bus, the property of John Hayton. The defendant, who did not appear, was represented by Mr. H. E. James, solicitor. The prosecutor deposed that on the night in question he conveyed defendant and three others in his 'bus from the Station Hotel to the Queen's Opera House, and that while proceeding to the destination Bowness deliberately knocked his fist through two of the windows. Defendant had been to him that morning and offered to "square" the business. Mr. James admitted the offence on behalf of his client, who was ordered to pay 25*s*., including costs, damages, and fine.

Manchester Ship Canal.

Like all the other industries of Lancashire, the drug-trade seems likely to benefit by the opening of the great waterway which connects Manchester with the sea. During the three weeks the canal has been at work considerable quantities of drugs, &c., have been sent by the canal from London and elsewhere. Out of about a hundred consignments by the *s.s. Edith Hough*, which reached Pomona Docks last Tuesday, a dozen or more lots were for chemists and druggists. Dealers in heavy chemicals are also hoping to derive considerable benefit by having their goods sent direct to Manchester, and thus saving the Liverpool dock and town dues and the heavy railway rates. The Chemical Section of the Manchester Chamber of Commerce is taking action with the view of having a satisfactory working arrangement established between the Canal Company and the traders. In this they are likely to be supported by the Manchester Section of the Society of Chemical Industry, who had the subject under consideration at their last meeting.

Face-guards in Mineral-water Works.

On Monday, in the Bolton County Court, damages for the loss of an eye were claimed by a lad named Arthur Spedding from the Jolly Mineral-water Company. On September 16 last, while Spedding was at work in the defendants' premises, he saw a fly in a bottle he had filled, and while he was preparing to get it out the bottle burst and struck him in the eye, the sight of which has been entirely lost. Amongst the witnesses was Mr. R. Tinker, H.M. inspector of factories and workshops, who stated that face-guards were necessary in such work, and that where they were not provided, as in this case, the plant was defective. The Judge held that the omission to provide face-guards was a defect in the plant, and on that account he found for plaintiff. It was a most serious matter to lose an eye, but as plaintiff was able to follow his employment he should not allow the full amount claimed. He gave judgment for plaintiff for 100*l*.

Fires.

On Friday night the warehouse of Mr. Mason, chemist, Cleethorpe Road, Grimsby, was discovered to be on fire, but fortunately the flames were extinguished before much damage had been done.

A most destructive fire broke out at the works of Mr. Joseph Thorley, King's Cross cattle-food manufacturer, on Sunday morning last, and in a few hours, of the three large buildings which comprise the offices, factory, and stores, the two latter were totally destroyed, the inflammable nature of the goods rendering the efforts of the firemen to cope with the fire almost abortive. When the fire brigade arrived on the scene about noon the large central building was blazing from top to bottom, and the flames quickly spread to an extensive building in the rear. The handsome front edifice, however, was saved, although at one time it was a matter of doubt whether this would not also become a prey to the flames. In three hours the fire was got under,

but it was found necessary to keep three steamers throwing water on the ruins all night. The factory was burnt down about three years ago, and had been rebuilt and fitted with iron doors. The origin of the outbreak has not been discovered, as no one is supposed to have been on the premises after 11 o'clock on Saturday night.

On Tuesday last an inquest was held at Hackney, in reference to the circumstances under which William George Taylor, aged 31, late in the employ of the British Xylonite Company, Homerton, lost his life in the fire which occurred at the works on December 29.

Mr. Alfred Spencer, chief officer of the Public Control Department, who appeared for the London County Council, said the fire, in his opinion, was caused by the spirit-vapour which had collected in the hydraulic press, owing to the lower plate slipping down and igniting. The factory had been visited by Colonel Majendie and Dr. Dupré. At one time a licence had to be taken out under the Petroleum Act, but the manufacture of the material was now carried on in Suffolk. Xylonite did not come under the Explosives Act, but witness was of opinion that such factories should be placed under some such conditions as where explosives were manufactured. No naked light would then be allowed inside the factory, and therefore an explosion from spirit-vapour would be impossible.

Professor John Attfield, F.R.S., stated that he had made an investigation into the circumstances attending the fire at the request of the Xylonite Company. Immediately before the fire portions of a sheet of xylonite had been cemented together, as usual, by aid of spirit of wine, heat, and pressure, and the sheet was then in the press under full pressure. Then came a hissing noise, a dull explosion, and the envelopment of the press in flames. Afterwards it was found that a leather collar had given way, and the plates of the press were found apart. This would allow the hot cementing spirit to form a vapour which with the air would form an explosive mixture, which the adjacent gas-jet would ignite. The spirit-smoking sheet of xylonite would then instantly catch alight, and set fire to everything combustible in the room. The xylonite under operation at the time of the fire required to be heated to above 400° Fahrenheit before it yielded inflammable vapour. The heat of the plates used was only a little over 200° Fahrenheit. Xylonite does not contain gun-cotton. The deceased was evidently suffocated.

The jury, after a short consultation, returned a verdict of accidental death, and added the following rider:—"The manufacture and the storage in large quantities of substances such as xylonite, especially dangerous and liable to cause fire, should be placed under regulation and supervision with a view to securing protection both to the workpeople and the public, and the prevention of exposed lights."

Death from Chloral.

An inquest was held at Walthamstow last week on the body of James Sadler, aged 48 years, a herbalist. The deceased suffered from sleeplessness, and had been in the habit of taking chloral. He was so in the habit of taking chloral (his wife said) that no notice was taken of it. He also used to eat opium. The jury returned a verdict that death had resulted from an overdose of chloral, taken by the deceased himself to induce sleep.

The Chemist's Pigeons.

Mr. Henry Horton Bushby, chemist, Fulham, a member of the Fulham Vestry, was summoned last week, at the instance of the medical officer of the parish, for keeping fowls and pigeons, and thereby causing a nuisance dangerous to health. It was stated that the defendant kept between fifty and sixty pigeons and some eight or ten fowls in the yard at the back of his house. The yard was less than 500 feet in size, and about 200 feet of that space was occupied by the caging of the pigeons. The medical officer said that when he visited the place in May the yard was dirty, and the cistern, which was not properly covered, was fouled by the pigeons. He went again in September and found that, though the cistern had been put right and the yard was cleaner, the pigeons were still a nuisance. He thought it was not a fit place to keep such a number of pigeons. The defendant alleged that the medical officer had a prejudice against pigeons. The case was eventually adjourned.

Irish News.

Public Analyst for Limerick.

The Limerick Corporation propose to appoint a City Analyst at a salary of 300*l.* a year. There are 50 applications for the post. At the meeting on Thursday, January 11,

Alderman O'Mara proposed that the consideration of the testimonials be adjourned for six months. He had yet to learn that Sir Charles Cameron, the present City Analyst, had failed in any prosecution. Any failure was due to remissness of duty on the part of the local authorities. In face of the impoverished state of the city he could not see why they should spend 450*l.* a year, which, if capitalised, would realise 10,000*l.*, and would best be spent in building artisans' dwellings. Mr. Begley seconded the motion.

Mr. McMahon said they would be the laughing stock of the world if they did not make the appointment, after they had invited applicants from all parts of the kingdom.

Alderman Hall, J.P., proposed that the testimonials be referred to a committee of the whole house, which was agreed to by 17 to 13 votes.

Pharmaceutical Society of Ireland.

Pharmaceutical Assistants' Examination.—Mr. William Thompson passed.

Registered Druggist Examination.—Messrs. C. Baker, A. H. Parker, R. P. Parker passed. Two were rejected.

Scotch News.

Shop-breaking.

Mr. Henderson, chemist, Carnoustie, had a visit from burglars last week, who cleared out his till. The proceeds amounted to about 10*s.*

Carbolic-acid Poisoning.

Some stir has been created in Edinburgh on account of a case of accidental poisoning with carbolic acid in the Fever Hospital. It occurred six or seven weeks ago, but the facts only became public last week. The victim was a servant girl in the hospital. She was not feeling well, and was told by the lady superintendent to take a dose of salts. The night superintendent next morning at 6 took a dose of what she thought was Henry's solution to the girl, but after the dose had been swallowed it was discovered to be carbolic acid. All was done to counteract the poison, but without avail. Inquiries have been made, and it is reported that the bottle of carbolic acid was standing among other bottles in the kitchen, and was labelled "poison" in large red characters; but it is stated that it was not a bottle belonging to the hospital. A report has been submitted by the Procurator-Fiscal to the Crown authorities, but further investigations are being made, particularly for the purpose of ascertaining how the bottle containing the carbolic acid came into the hospital. Meantime the mother of the girl has made a claim upon the city for damages.

Bromide of Potassium in Court.

On Monday, Lord Kyllachy closed the record in an action brought by W. R. Fairlie, iron and metal merchant, Glasgow, against F. R. Hughes, chemical-manufacturer, Bo'ness, for delivery of a lot of unfinished bromide of potassium, which was one of the items in an inventory of the chemical plant for prussiate and kelp manufacture, in chemical-works, Bo'ness. Failing delivery, payment is asked of 224*l.* From statements made it appears that the pursuer offered for the whole plant and stock of the Bo'ness Chemical-works, belonging to the defender, as per inventory, the sum of 676*l.* The offer was accepted and the money paid, but the pursuer averred he had been unable to recover the bromide of potassium, which formed part of the inventory. The defender replies that it was not included, and that pursuer was told so. This is the point which Lord Kyllachy has to decide.

A First Bell Wanted.

An Edinburgh firm of wholesale druggists had an unpleasant experience during the recent severe weather. Their premises are fitted with automatic sprinklers as a protection against fire, and these were so affected by the frost that they discharged water freely. The alarm bell being set for high and not for low temperatures, did not act, and the result was that a good deal of damage was done in the lower floors of the warehouse before the mishap was discovered.

For Amending the Food and Drugs Act.

At the meeting of the Glasgow Police Commissioners held on Monday, the Health Committee reported on the advisability of having the Food and Drugs Act amended. The committee stated that they had the report and opinion of their clerk as to the difficulty, if not impossibility, of obtaining convictions for contraventions of the Act, by being required to prove that certain foreign ingredients added to foods or drugs are "injurious to health," the Courts of Law desiderating, as a condition precedent to conviction, legal proof of actual injury to the health of consumers. It was therefore recommended that steps should be taken to have the Acts of 1875 and 1879 amended to the following effect: "That cream and milk shall not be sold or kept for sale to which any foreign matter has been added." That the words "injurious to health," occurring in section 3 of the Act of 1875, be read as if the words "dangerous or injurious to the health of any person using the same" were substituted therefore, and that the words "not injurious to health," occurring in section 6 (1) of said Act, be read as if the words "not poisonous or dangerous or injurious to health" were substituted therefore. The commissioners approved of the committee's recommendation, and directed that the whole matter be brought before the Secretary for Scotland, and Sir Charles Cameron, Bart., M.P., with a view to an amendment of the Acts.

The Tyson Cure.

It is reported that some of the Dundee patients declare that they have lost all craving for intoxicants. They were offered whisky several days after undergoing treatment, and on tasting it felt quite nauseated by it. The agent of Dr. Tyson has secured one or two private patients in the town.

Alleged Infringement of a Company's Title.

*In the Greenock Sheriff's Court, on Tuesday, January 16, Sheriff Henderson Begg heard proof in an action in which the Greenock Apothecaries' Aerated-water Company (Lim) asked the Court to interdict Sarah Elizabeth Reid, or Cairns, relict and executrix of the late Dr. Cairns, from carrying on the business of dealer in or manufacturer of aerated waters under the name of pursuer's company, or of the firm of the Greenock Apothecaries' Company. At the close of the proof the Sheriff took the case to *avizandum*.

The Edinburgh Chemists' Ball.

This ball is to be held on February 8, and we are told that all who wish to attend must apply for tickets at once to any member of committee or Mr. Coats, 91 Broughton Street. A meeting of the committee will be held at 36 York Place on Wednesday next, at 9.15 p.m.

Athletic Ball.

The Edinburgh Pharmacy Athletic Club had a dance in the Oddfellows' Hall, Edinburgh, on Friday evening last. Messrs. W. D. Jameson and J. P. Gibb acted as M.C.'s.

French Pharmaceutical News.

(From our Paris Correspondent.)

THE SALE OF ANTISEPTIC DRESSINGS.—As the result of the recent successful prosecutions against surgical-instrument dealers for selling antiseptic dressings without possessing the necessary pharmacist's diplomas, the Syndical Chamber of Pharmacists of the Seine has issued a circular drawing attention to this new confirmation of the rights of the profession. The Chamber gives notice that, in view of this

result, it will not hesitate in future to prosecute any dealer other than a qualified pharmacist, who offers antiseptic dressings for sale.

MEDICAMENTS IN THE FRENCH NAVY.—When a correspondent of the *Times* opened the way to the English Navy scare some weeks ago by a long article on the Toulon Arsenal, he appeared satisfied that no such arsenal existed anywhere, and said so. Gradually the French newspapers came to belying him, and the "Scandal of the Toulon Arsenal" is the order of the day. It appears certain that this great naval depôt is without the necessary materials for mobilisation; also that the stores are quite inadequate and, at the best, not in a more satisfactory condition than they were in 1870. This is a state of things which Frenchmen do not at all appreciate; compulsory service in the army or navy is bad enough, but the rank and file would enter on a war with very little enthusiasm if they thought the medicine-chests were badly replenished.

THE PHOTOGRAPHY OF COLOURS.—Professor Lippmann read a short paper at the weekly meeting of the Paris Academy of Sciences on Monday, January 15, concerning the analytical theory of the photography of colours by his interferential method. He showed that in the case of simple colours the light has communicated to the sensitive layer the structure of lines of three dimensions. In the case of complex colours, such as white, which nature gives, the problem is more complicated. Analysis proves that when a photographic impression has been produced by an infinity of simple radiations the photographic deposit has a corresponding structure, which shows exactly the reproduction of the composed colours and especially of white. In support of his theory Professor Lippmann exhibited to the Academy a series of negatives, especially views and portraits, all of which had been photographed by M. Louis Lumière. The most diversified colours were reproduced on these negatives with perfect clearness, and satisfied the Academy of Sciences that the problem of the photography of colours has very nearly approached solution. Professor Lippmann was much applauded and complimented.

Pharmaceutical Society of Great Britain.

EXAMINATIONS IN EDINBURGH.

THE following are the names of those who passed the examinations conducted by the Board of Examiners for Scotland this month:—

MAJOR EXAMINATION.

Robert McClumpha, Newcastle-on-Tyne

MINOR EXAMINATION.

Areher, George B. (Walker, Portobello)	King, James, Coatbridge
Black, John, Edinburgh	Langbourne, Walter Charles, Bury
Browell, John James, Sheffield	McCowan, John, Edinburgh
Brown, Robert Hinde, Manchester	Macfarlane, Thomas, Edinburgh
Brunton, William David, Edinburgh	Medley, Fred, Manchester
Cameron, Alexander, Edinburgh	Mollison, William Whyte, Edinburgh
Chorley, Cleasby, Edinburgh	Portlock, Francis, Manchester
Clemiston, Joseph William, Crook	Roberts, Robert Randall, Liverpool
Cole, William Henry, Edinburgh	Roberts, Thomas William, Ellesmere Port
Cowper, Colin Campbell, Edinburgh	Robinson, Albert, Pendleton
Dixon, Rowland, Prestwich	Robson, William Robert L., Newcastle-on-Tyne
Ferry, Robert Bailey, Edinburgh	Scott, Thomas, Edinburgh
Glendinning, James Colman, Sheffield	Senth, John Alexander, Dunfermline
Glover, John, St. Helens	Sinclair, George, Edinburgh
Harrold, William Malcolm, Edinburgh	Smith, Thomas, Beverley
Herald, Walter Ogilvie, Manchester	Stones, Arthur John, Rotherham
Herd, Thomas Smith, Newcastle-on-Tyne	Taylor, George, Leith
Higfield, Henry, Sheffield	Thexton, George William, Edinburgh
Holt, Robert Dickinson, Bowdon	Tod, James Arnold, Edinburgh
	Wood, Robert, Edinburgh

Business Changes.

MR. R. BLACK, Justice St., Aberdeen, has disposed of his business to Mr. R. Lamb.

MR. W. MACMILLAN, Inch, N.B., has disposed of his business to Mr. James Booth.

MR. C. G. DAVIS has opened a store chemist establishment at 60 Bridge Road, Battersea, S.W.

MR. DICKINSON, chemist, has purchased the business of Mr. Owen, chemist, of Archway Road, Holloway, N.

MR. MATHER, chemist, has purchased the business of Mr. Atkinson, chemist, of 130 Camden Road, London, N.

THE old-established business of Mr. Key, chemist, Cold Harbour Lane, Camberwell, S.E., is closed, and the premises are to let.

MR. JAMES, chemist, of Swaby Road, Burntwood Road, Wandsworth Common, S.W., has sold his business to Mr. Loxley, chemist.

MR. JOHN FRASER, chemist, late of the Glasgow Apothecaries' Company, Western Branch, has opened a pharmacy at No. 6 West Princes Street, Helensburgh.

MR. KIRBY JAMES, of 9 Swaby Road, New Wandsworth, has gone to the Cape for the benefit of his health, and has disposed of his business to Mr. C. H. Loxley.

MR. J. DWYER, chemist, Mile End Road, E., a few doors from the Paragon Music Hall, has purchased the business of Mr. A. Bevan, chemist, of Balls Pond Road, N.

MR. F. TUNBRIDGE, chemist and druggist, 84 Broad Street and 39 Castle Street, Reading, has purchased Messrs. S. Coles & Co.'s business in West Street, Reading.

MR. HENRY MILNE has sold his business in Old Aberdeen to Mr. J. Alexander, 88 Gallowgate. Mr. Milne is now devoting his attention to his business in King Street.

THE business of the late Mr. Adams, chemist, of New Park Road, Brixton Hill, S.W., is closed, and the fittings sold off in consequence of not being able to get a new lease.

MR. EDMUNDS, chemist, of Luton, has purchased the old-established business of the late John Broad & Son, Hornsey Road, N., and is refitting it as a modern pharmacy.

MR. JOHN BARCLAY, Old Meldrum, Aberdeenshire, has disposed of his business to Mr. James Bremner. Mr. Barclay is making arrangements to commence business in Stonehaven.

MR. THOMAS CASELY, for many years in business in the Camden Road, Holloway, N., as a homœopathic chemist, has purchased the branch business of Mr. Green, chemist, at 2 Francis Street, Woolwich, S.E.

MR. T. H. SEED, chemist, for many years manager to Mr. Bromwich, and also to Mr. Harwood, chemists, both of Woolwich, S.E., has purchased the business of Mr. W. J. Doe, chemist, Leyton Pharmacy, Upper Marsh, Leyton, E.

MR. LAURENCE, chemist, of 125 St. John's Hill, New Wandsworth, S.W., has disposed of his business, and, in conjunction with Mr. Marshall, chemist, of Ebury Bridge, Pimlico, S.W., purchased the business of Duncan & Co., of Bournemouth.

MESSRS. CASSIE & Co., chemists, 49 Newgate Street, E.C., have undertaken the exclusive manufacture of Dr. O. E. Horn's hair specialities, and will supply them in future. Dr. Horn continues to give advice at his Newport (Isle of Wight) home, and at Messrs. Cassie's establishment.

MR. F. H. DE LA RUE, who has been granted leave by the Court of Guernsey to practise as chemist and druggist in that island, has succeeded to the old-established business formerly carried on by the late Mr. T. P. Naftel, and of late years by Mr. C. Mellish, at 22 States Arcade, St. Peter Port.

MR. JAMES CLARK, pharmaceutical chemist, for several years managing partner in the firm of Messrs. J. & J. Urquhart, Aberdeen, has relinquished that position, and has commenced business in Union Street. The management for

Messrs. J. & J. Urquhart is undertaken by Mr. Robert Urquhart.

MR. MATTERSON, chemist, proprietor of the "Day and Night Pharmacy" in Oxford Street, W., has purchased the business of Messrs. Twinberrow & Son, chemists, of Wigmore Street, W. Messrs. Twinberrow & Son's shop in Westbourne Grove, W., has been closed as a chemist's business, and the lease sold.

MESSRS. SLIDSTON & MARTIN, chemists, of Treville Street, Plymouth, trading as Lloye & Co., have dissolved partnership. Mr. Slidston continues the business. Mr. John Martin has taken the commanding block of buildings known as Eastman's, at the corner of the Market and Cornwall Street, Plymouth, and will shortly open the shop as a pharmacy in partnership, trading as "Martin & Palmer."

Personalities.

MR. WILLIAM CUMMING, chemist and druggist, Thurso, has been elected noble grand master of the St. Andrew's Lodge of Oddfellows in his town.

MR. J. J. H. DAVIES, pharmaceutical chemist, formerly of Newcastle, Emlyn, South Wales, has been appointed manager of the pharmacy of Messrs. Symes & Co., of Simla, India.

ONE of the letters in our correspondence columns this week is written by a chemist and druggist who is in his 90th year. Mr. Paul Wardropper, of Cullercoats, has been connected with pharmacy since 1817, and at the present time is attending daily to business in all departments. We take it that Mr. Wardropper is the oldest chemist and druggist in the Kingdom actually in business now.

ON January 6, at Sun Factory, Bristol, a presentation was made to Mr. Gover, chief clerk of The Chemists' Aerated and Mineral Waters Association (Limited), Bristol, in the shape of a handsome double set of carvers in case, bearing the inscriptions "Presented to Mr. C. H. W. Gover on the occasion of his wedding as a token of good wishes from the employés of C.A.M.W.A.L., January 11, 1894." The manager also handed to Mr. Gover a cheque from the company and a cheque from himself. Mr. Gover invited the staff to a tea at Phelps' Hotel, and made arrangements for all of them to visit the pantomime at the Prince's Theatre afterwards.

DR. KOCH'S NEW DISCOVERY, ANTISEPTIC SANATIVE POWDER, a preparation introduced in the United States, has been analysed and found to consist of 34 per cent. of alum and 64 per cent. zinc sulphate, with a little reddish colouring matter.

THE COD AND THE MAN.—The *New York Recorder* tells the story of the origin of the trade-mark of Scott's Emulsion:—"Some ten years ago Mr. Scott was seated in the office of the American Consul at a little seaport town in Norway. Word came in that the largest codfish ever caught in the vicinity was just outside. Mr. Scott and the Consul went to view this extraordinary 'catch,' and met a bronzed mariner bending under the weight of the colossal cod he had caught. A local photographer was hunted up and a picture secured. The trade-mark of the emulsion is an exact reproduction of this photograph, details and all."

THE IMPERIAL PHARMACOPOEIA.—Referring to the proposal to make the British Pharmacopœia imperial the *Canadian Pharmaceutical Journal* says:—"We do not for a moment wish to say a word reflecting on the U.S. Pharmacopœia. On the contrary, we believe the recent revision to be unsurpassed by any similar publication; but as this is a British colony, and as the British Pharmacopœia has been almost exclusively recognised as the standard, not only by pharmacists, but by the medical profession, medical teaching bodies, and to a partial extent by the Dominion Government, any change would occasion an immense deal of trouble and inconvenience, and is entirely out of the question. The work has in general proved quite satisfactory, and with such additions as are called for by the requirements of practice here it can be made entirely so."

Legal Reports.

RUPPERT'S SKIN-TONIC.—JUDGMENT OF THE DUBLIN MAGISTRATE.

ON Friday, December 12, in the Southern Divisional Police Court, Dublin, Mr. Swifté pronounced judgment in the case of the Pharmaceutical Society of Ireland v. Madame Anna Ruppert, the details of which were reported last week.

Mr. Swifté said that a similar summons to the present one had been issued against the defendant in July last, in respect to a sale made in her Dublin branch, and following upon that there were placed before him in the present case five letters from the defendant to Miss Stuart, who has charge of the Dublin branch. Miss Stuart, on being served with the first summons, was considerably alarmed, and wrote at once to Mrs. Ruppert, who, on July 27, wrote a reassuring letter to her, advising her to go into court, and make "a plain straightforward statement," that neither of the ladies was aware that the law against the sale of poisons in England extended to Ireland, otherwise that Mrs. Ruppert "would certainly not have gone against the laws of the country." Mrs. Ruppert added:—"You may also explain to the people that the tonic has been changed, and that the new has been sent to you, and that the same error will not occur again." By the word "error," he understood Mrs. Ruppert to mean the "error" of putting a poisonous ingredient into her tonic. Thus, her letter, the tone of which seemed quite unexceptionable, amounted to an admission that she had then, however innocently, broken the law, and expressed a determination that the same thing should not happen again. He had asked to see the invoice of the new goods, and the only one handed in was for three dozen bottles, dated August 22. This was not very material, as there may have been an earlier invoice. Mrs. Ruppert wrote again to Miss Stuart on July 28, saying—"You need not"—not "you must not," or "don't"—"sell any more of the tonic which you have, as we are sending you some new to-day, by goods train, which should reach you on Monday; this will be in every way satisfactory, and the authorities will not be able to find fault with it; it will also give satisfaction to the patients, so you will be all right again." On August 17, the first summons came on before Mr. Byrne, Q.C., and the defendant was fined 5*l.* and costs. On August 18, the defendant wrote to Miss Stuart, saying that she had just seen a notice of the result of the previous day's proceedings, which was exactly what she had anticipated; and she added—"I know you will understand perfectly well how to make explanations in case this report is circulated in Ireland, by saying that the Court did not find any fault with the tonic, but we were not allowed to sell certain ingredients unless we are licensed chemists or physicians. It is a very stupid law, but we are obliged to keep it. Then you can, of course, tell them that the new tonic does not contain the poison, and although efficacious, is not quite so rapid."

Having thus reviewed the first case and the correspondence immediately following it, Mr. Swifté proceeded to comment upon the present one. The sale, he said, was made to Mr. Ferrall on September 5, and the tonic was found by Professor Tichborne to contain 6½ grains of corrosive sublimate. Miss Stuart's share in the matter was also referred to, Mr. Swifté saying that, although Miss Stuart admitted on cross-examination to Mr. Clay that she received her instruction in writing, it is curious that no letter from the defendant directing her to send the old bottles back to London, was produced, nor any letter actually prohibiting a sale of the old tonic—the letter of July 28 merely stating that there was no necessity to continue the sale of the old stock; and the defendant was incorrect in stating in her letter of September 6, that she had distinctly warned Miss Stuart to sell nothing but the new tonic, and there appeared no clear ground for her adding in that letter, "In the event of any action being taken in Dublin again, I must tell you that I cannot hold myself responsible or render you any assistance. I have done all in my power to put things straight by giving you full directions how to act, and you have seemingly failed to follow my instructions." But considering Miss Stuart's whole action in the matter, he believed she was under the

impression that it was the new tonic she had sold to Mr. Ferrall. He had therefore come to the following conclusions of fact:—That a sale of a poisonous substance, prohibited by statute, save by a qualified person, was effected by Miss Stuart, who was then the agent or servant of the defendant, to Mr. Ferrall; that the defendant had *bonâ fide* prohibited such sale in the qualified language of the letter of July 28; and that both ladies believed there had been an absolute prohibition before September 5 of such sale. He believed that neither lady had any intention of breaking the law. Mr. Swifté discussed the probable origins of the mistake, and entirely exonerated Mr. Ferrall from having made any mistake as to the bottle he got for analysis. As to the question of law, Mr. Clay contended that a sale of a statutory poison by the defendant's agent having been proved, that was quite enough to make the defendant liable. Mr. Campbell, Q.C., on the other hand, argued that a master is only liable for the acts of his servant done within the scope of the servant's employment; and that is undoubtedly the general principle. However, at the close of the second day's hearing, I directed attention, Mr. Swifté continued, to three cases which seemed to me to have a considerable bearing on the present one; and I have not since found any others at all equally applicable. One of these, *Kearley v. Tonge*, 60 L.I.M.C., page 159, decided in 1891, is merely of use as showing that Mr. Campbell was entitled to give evidence, as he did without objection, of the instructions which the defendant had given to Miss Stuart as to not selling the old bottles. The case of *Newman v. Jones*, however, decided in 1886, and reported in 17 Q.B.D., page 132, is a very important authority for the defendant; and I have little hesitation in saying that if it had not been followed by the third case to which I shall advert, I should have dismissed the present summons. In *Newman v. Jones*, which was a case stated by justices, the appellants, who were trustees and members of the managing committee of a club, were convicted under the Licensing Acts for selling liquor without a proper licence to persons not members of the club. It appeared that the liquor was sold on the club premises by the steward of the club, who, in selling it, acted contrary to the orders of the appellants, and without their knowledge or consent. The money which he received for the liquor was paid by him to the account of the club. It was held that the conviction was wrong, for that the appellants were not, under the circumstances, responsible for the act of the steward, their Lordships laying down the principle, that a master is not liable when the servant or agent sells in direct contravention of *bonâ fide* orders, and without the knowledge or assent of the master. That case would seem—assuming the defendant to have prohibited the sale of the old tonic—to be wholly undistinguishable from the present one. But now we come to *Brown v. Foot*, decided in January, 1892, reported in 61 L.I.M.C., 110. It was a case stated by a London magistrate, who had convicted the appellant Foot. A servant of Foot, named Pollard, was employed to sell milk out of cans by retail. The cans were received by Foot on arrival from the country, and a sample taken from each before it was sent out for sale. Foot had published a warning to his servants that any servant whose can of milk did not correspond with the sample taken from it would be liable to instant dismissal. Pollard admitted that he watered the milk, some of which he sold to an inspector, who summoned Foot under section 6 of the Sale of Food and Drugs Act, 1875. The Court held that Foot was rightly convicted, on the ground that he was the seller within the section, and was liable for his servant's action in selling adulterated milk; and they also held that the fact of the sale of adulterated milk was sufficient proof of the offence without evidence of any connivance by the master, though evidence rebutting connivance might properly be admitted by the magistrate with a view to mitigate any penalty he might otherwise have thought fit to impose. That case is so like the present one, that if the attention of the Court had not been called to the previous decision in *Newman v. Jones*, which it was, and that decision distinguished by one of the Judges, I should have felt myself in a good deal of difficulty between what seem at first sight to be conflicting authorities. Mr. Justice Hawkins, according to the *Law Journal*, says:—"There seems to have been no evidence indeed before the Magistrate that the appellant had in any way connived or winked at subsequent adulteration by his servants. I am, nevertheless,

of opinion that for all practical purposes here the master was the seller of the milk subsequently found to have been adulterated, and is properly made liable for the consequences of such a sale. There is no doubt that he would be liable in a civil action for such acts of his servants. A purchaser prejudiced by such a sale would rightly sue the master, not the servant. He is the person responsible to customers. The Act is expressly enacted to prevent the sale of adulterated articles—"just as the Pharmacy Act is to prevent the sale of poisons. "It is the sale of such articles which is the offence. The language of section 6 is clear. It is not 'selling knowingly.' Any such word is carefully excluded," and so it is in section 30 of the Irish Pharmacy Act, under which this prosecution was brought. Mr. Justice Willes seems to put the matter even more strongly. His Lordship says:—"I am of the same opinion. By section 6 of the Act of 1875, there is a positive prohibition of the sale of any adulterated article of food, implying, to my mind, not only that every person should take care not to do physical acts of sale, but not to employ anyone who should sell such an article. In *Newman v. Jones* it was the steward who sold liquor to a person other than a member contrary to the express orders of the committee. That is the totally different case of a person acting outside his orders, not in selling the thing sold, but in selling at all. Here the business of the servant was to sell. Therefore the appellant must see that the servant within the scope of his employment does not contravene the Act, and must be held liable, within that scope, for its contravention. This is reasonable enough on grounds of public policy. To require knowledge of, or connivance in, the adulteration might defeat the very purpose of the Act." Every word in this extract seems to me applicable to the present case, and to show how it is distinguishable from *Newman v. Jones*. Miss Stuart was employed to sell the defendant's skin tonic, with an intimation that she need not sell any more of a particular stock, and, in the course of her employment as the defendant's general Dublin agent for the sale of the tonic, she disregarded the defendant's intimation and sold a bottle—by inadvertence, as I believe—of the objectionable stock, thereby violating the Statute Law, "corrosive sublimate" being one of the poisons specifically scheduled in the Irish Poisons Act of 1870. Under these circumstances I feel myself coerced by the case of *Brown v. Foot* to convict the defendant on the present summons, and it only remains to fix the amount of the fine. Section 63 of the Dublin Metropolitan Police Act, Vict. 5 c. 24, gives me the power of moderating penalties even where imposed by subsequent Acts of Parliament at a fixed amount. This provision was modified by the 27th and 28th Vict. c. 110, which, however, seems to me not to apply to the penalty of 5*l.* imposed by section 30 of the Irish Pharmacy Act. Taking the view I have indicated of the defendant's *bona-fides* in this case, and also bearing in mind that she has been at the expense of a return journey from London and of employing eminent session counsel to defend her in this summons, while, on the other hand, not forgetting that the public must be protected against the unauthorised sale of poison, even accidentally, I mitigate the penalty to 20*s.* The defendant must also pay the full costs of the plaintiffs, who have protected the public interests in this case. I fix the costs at —, what do you say, Mr. Clay?

*Mr. Clay: The usual costs of an ordinary hearing are 3*l.* 3*s.*, but we have been here three days, including to-day, for the judgment.

Mr. Walker: I would ask you, sir, to have regard to the way in which the summons came on. It was issued on the 2nd of the month, and sent over to London, where Miss Stuart and Mrs. Ruppert were at the time. It reached there on the 3rd, and they came across and were here on the 4th. They saw me about 12 o'clock that day, and I wrote to Mr. Clay asking for an adjournment. He let me know about 2 o'clock that the Society would not agree to it. I asked Mr. Clay to tell me the name of the person—

Mr. Clay: Why didn't you give all this in evidence?

Mr. Swift: Oh, I don't think I can hear any long discussion about costs. I shall say 4*l.* costs.

Mr. Clay: Say 4*l.* 4*s.*

Mr. Walker: In case we wish to appeal shall we have any occasion to raise the amount of the fine?

Mr. Swift: I don't think you require it.

Mr. Clay: It has been decided on appeal in the Queen's

Bench that your Worship has no power to reduce the amount of the fine.

Mr. Swift: If so, I should like to be referred to the case.

Mr. Clay: If you will let this case stand as a matter of form I will send you the decision.

Mr. Swift: In that case I must put on the full penalty. Is the case you speak of reported?

Mr. Clay: It is. The magistrates in the country took the view that the fine could be reduced, and they were held to be quite wrong.

Mr. Swift: Of course if that has been decided by the superior Court I am bound.

Mr. Clay: I will let you have the case.

On the following day (Saturday) the case was mentioned again, and Mr. Swift stated that he had read the report of the case decided in the Queen's Bench Division, which Mr. Clay, on the part of the prosecution, had sent in to him, contending that it took away his power to mitigate the 5*l.* penalty. He found that it only applied to cases dealt with by justices at petty session, and did not affect the power which he had under the Dublin Metropolitan Police Act of mitigating penalties. He accordingly confirmed the order which he had already made imposing the mitigated penalty of 1*l.* on defendant.

NOTICE OF APPEAL.

Notice of appeal has been lodged on behalf of the Pharmaceutical Society against the reduction of the 5*l.* penalty to 1*l.* in this case.

INFRINGING THE EXPLOSIVES ACT.

JOSEPH GILMAN, chemist and druggist, Corporation Street, Birmingham, was charged under the Explosives Act, before the magistrates on January 11, with keeping on his premises more than 15 lbs. weight of explosives, and also with keeping 2 lbs. of blasting-powder without having the necessary certificate of authorisation. The inspector of explosives, Mr. F. J. Jarrett, stated that on January 1 he went to the premises of the defendant, and there found 229½ lbs. of explosives, or 214 lbs. in excess of the quantity defendant had authority to keep. The explosives were stored in casks and tea-chests. There were also 2 lbs. of blasting-powder, which was in the shop with the other explosives. The defendant pleaded guilty, and the magistrates fined him 20*l.* and costs in the first case, and ordered him to pay the costs in the second.

TR. RHEI SINE CROCO.

AT Settle Petty Sessions on January 9, Mr. Thomas Dawson, grocer, Settle, was summoned for selling tincture of rhubarb entirely destitute of saffron.

Mr. G. K. Charlesworth, solicitor, who defended, contended that the saffron was only used for colouring purposes, and was not a necessary ingredient or drug. A fine of 1*s.* and costs was imposed.

AT the same court, Mr. Thos. Altham, grocer, Settle, was fined 1*s.* and costs for a similar offence.

MALT BREAD.

LORD KYLLACHY has before him in the Court of Session, Edinburgh, a case of alleged infringement of patent. It is the subject of two actions at the instance of John Montgomery, of Virginia Place, Dumbarton Road, Partick, with concurrence of the *Financier* (Limited), St. Vincent Street there, against William Paterson, of Phoenix Works, Maryhill, Glasgow, manufacturing chemist, and Paterson's Chemical Manufacturing Co., Limited, West Regent Street, Glasgow.

The pursuer seeks to have the defenders interdicted from infringing certain letters-patent granted to him. Damages are put down at 5,000*l.* The pursuer's patent consists in a process for manufacturing malt bread by the use of malt extract. The pursuer has granted licences to a large number of bakers in various parts of Scotland and England, authorising them to work the patent. In March, 1887, he entered into an agreement with Paterson's Chemical Manufacturing Company, whereby they agreed to supply the pursuer's

licensees with extract of malt, and to allow the pursuer a commission on the supplies. It was a condition of the agreement that Paterson's Chemical Company were not to sell malt extract, directly or indirectly, to any bakers or others in the same line of business other than those holding licenses from the pursuer. Notwithstanding that condition, the pursuer averred that the defenders, in breach of their contract, sold considerable quantities of the patent extract of malt, and offered to bakers, free of royalty, the use of an alleged process of their own for the manufacture of malted bread. In this and other ways, the pursuer alleges that the defendants have done him damage.

The defence is that pursuer's letters-patent are invalid, on the ground that the invention had been anticipated and was publicly known and used prior to the date of the letters-patent. They maintain that they had not infringed the pursuer's alleged patent.

In the second action the pursuers seek for reduction of the letters-patent granted to Paterson.

His Lordship's decision has not yet been given.

ANALYSTS MUST "FIND" NOT "ESTIMATE."

IN the Queen's Bench Division on Wednesday, Justices Day and Lawrance, sitting as a Divisional Court, had before them the case of Newby v. Sims, on appeal against a decision of the South Shields Magistrates. The defendant in this case was a publican, and he was summoned under the Food and Drugs Act for selling rum adulterated to a greater extent than allowed by the Act. On the case coming before the Magistrates the certificate of an analyst was put in. The certificate contained these words:—"I estimate the sample of rum to contain an excess of water over and above that allowed by Act of Parliament. I am of opinion that the sample is not a sample of genuine rum." The Bench declined to convict on the ground that the word "estimate" was used instead of the word "find," and against that decision the prosecutor now appealed. Mr. Justice Day came to the conclusion that the Court ought to support the decision of the Magistrates, though not on the same grounds. The real question was whether upon the face of the analyst's certificate an offence under the Act had been clearly proved. He was of opinion that it was not. An offence was suggested, no doubt, and there seemed little doubt that an offence had been committed, but it was not proved. The difficulty, he found, was in determining what was rum, and not in respect of the use of the words "estimate" or "find." Spirits were only sold as pure spirits in theory. They always must have water, but whether too much or too little water was added seemed in this instance to be left to popular estimation. The analyst in this case said he estimated there was water over and above what was permitted by Act of Parliament, thereby taking upon himself to give judgment both as to the law and the fact. That was not sufficiently clear evidence upon which the Magistrates could act. The certificate was not in such a form as to amount to evidence which would justify a conviction, and therefore the Magistrates were right. The appeal must be dismissed with costs.

Mr. Justice Lawrance concurred.

COUNTY-COURT CASES.

Prosecution under the Pharmacy Act.

AT the Kingston County Court on Friday, January 12, before Judge Lushington, Q.C., the Pharmaceutical Society of Great Britain, through Richard Brembridge, Secretary and Registrar, sued Percy Cooper, under the fifteenth section of the Pharmacy Act, for having sold laudanum at the shop, 93 Kingston Road, Wimbledon, he not being a chemist and druggist registered under the Act.

Mr. Gray, barrister, appeared for the Society, and stated the facts in the case.

John Partridge deposed that a short time ago he went to the premises named. Over the door he saw the name, "Coombe, Price & Co." He went inside and saw a young man described as Percy Cooper, of whom he purchased twopennyworth of soap-liniment and twopennyworth of laudanum, which were mixed and handed him in the bottle produced. He also purchased some laudanum in another bottle.

Ernest John Eastes, F.I.C., stated that he analysed both purchases, which he found to contain the essential constituents of opium, as preparations of which they came within the Act.

His Honour held the case proved, and imposed a penalty of 5*l.* and costs.

An Assistant Committed.

IN the Westminster County Court, on January 11, before his Honour Judge Lumley Smith, the case of Prior v. Aubrey came on for hearing by a judgment-summons applying for the committal of the defendant for non-payment of a judgment-debt. The debtor was described as a chemist's assistant, and it was said that he was in the employ of a good firm in the neighbourhood of the Court, and was in receipt of a salary of such a substantial character that he could easily pay the debt. The debtor did not appear, and his Honour made an order for his committal to Holloway for twelve days, but suspended the warrant a month.

The Fernando Puzzle.

IN the Westminster Court, on Tuesday, the case of Sanger v. Fernando was before his Honour Judge Lumley Smith, plaintiff asking for an order of committal against Mr. Frank Fernando for non-payment of a judgment-debt.

The Judge: I have had this debtor before me on several occasions before, and, if I remember rightly, there is a puzzle as to who the business belongs to. Do you know whether or not it belongs to him?

Witness: I believe it does.

The Judge: Very well; there will be an order for his committal to Holloway for twelve days, suspended six weeks.

A French Chemist Committed.

IN the same Court, and on the same day, plaintiff Callard asked for an order of committal against Mr. Lamont, a French chemist carrying on a business at Wardour Street, Leicester Square. The plaintiff's representative, in reply to questions put to him by the Judge, said he was perfectly satisfied that the debtor was in a good position to pay, as he was the sole owner of a very substantial chemist's business in a crowded part of London. The learned Judge, in the debtor's absence, made an order for his committal to Holloway for twelve days, but suspended the operation of the warrant for one month.

Drugs Supplied, but not Paid For.

SANGER & SON afterwards asked Judge Lumley Smith to order payment of an account for drugs supplied to a Mr. Shird. No appearance was put in on behalf of the defence, and his Honour made an order for payment of the debt and costs in a week.

A Chemist and his Pomade.

A STRANGE action for damages by a chemist came before Judge Lumley Smith, Q.C., and a jury, on December 12, at the Westminster County Court. The plaintiff, Mr. Gibson, is a chemist, at present residing at 97 Drury Lane, W.C., and his case was that he had known the defendant, Arthur Clack, for a great many years. The defendant, he said, kept a number of sporting dogs, plaintiff attending to them for him. Whilst he was dressing one, which had a canker in the ear, it barked, and Mr. Clack became cross, and some words ensued, in the course of which rather coarse language was used on both sides, and the defendant knocked him down and broke three of his ribs. He therefore claimed to be compensated for his injuries. In cross-examination by Mr. Merton, the plaintiff said he did not know whether he was born in Darlington. He had had eighteen months for bigamy. Mr. Merton: You have married four wives? Plaintiff: I married a woman without knowing she was married, and her counsel having more money than I had I was convicted. His Honour: I have heard of a husband's liability for his wife's debts, but not for a wife's bigamy. Plaintiff: Not quite, sir. She was a married woman at the time. She went away, and I married again. She came back, and, through a gentleman, prosecuted me, and I had not enough money to defend myself. The defendant said the plaintiff was very drunk and fell on the dog, and he ordered him out of the house. He had been maintaining him for a

long time, and he was not attending to the dogs. When he was leaving the house a brush, comb, and pot of pomade fell out of his bag. The pot bore the stamp of the St. Giles and Bloomsbury Union. His Honour asked if the Union stood pomade for the paupers. The jury stopped the case, and gave a verdict for the defendant, and judgment was given accordingly with costs.

Deaths.

BILLS.—On January 8, Martha Cam Bills, chemist and druggist, of Bishop's Castle. Aged 78.

BOYD.—On January 14, at his residence, Illerton, Killiney, Samuel Boyd, J.P., chemist and druggist, in his 72nd year. The deceased gentleman was a partner in the firms Boileau & Boyd, Bride Street; S. Boyd, 46 Mary Street, and Boyd & Goodwin, 6 Merrion Row, Dublin. He was buried at Mount Jerome Cemetery on Thursday.

GIBBONS.—Mr. Thomas G. Gibbons, the well-known pharmaceutical chemist, of Market Street, Manchester, died, after a long illness, on January 11. Mr. Gibbons was a native of Chester, and a freeman of that city. He served his apprenticeship with a well-known Chester chemist, Mr. Samuel Davies (now Messrs. Davies & Shepherd), and on the expiration of his apprenticeship purchased the business in Market Street, Manchester, with which his name has ever since been associated. This was fifty-five years ago. The pharmacy is one of the oldest in England if not the very oldest, its history dating back something like two hundred years. To-day there is to be seen in the window of the shop a curiosity in the form of a prescription of date 1790. At the time Mr. Gibbons purchased it, the business belonged to Messrs. Campbell & Rowe, in whose hands it did not flourish. Formerly it was owned by Mr. Horatio Miller, whose name is associated with the investigations which led to the introduction of the liquid preparations of sarsaparilla. On Mr. Gibbons taking possession, he revived the sarsaparilla-department of the business, and ever since a speciality has been made of it. His only son, Mr. Walter Gibbons, who had previously been studying chemistry in Germany, at the Owens College, became connected with the business in the year 1875, and six years later, after he had served his apprenticeship and passed the major examination, he was taken into partnership. A year or two ago, when his father's health began to show signs of failing, the business was practically taken over by him. During the last three years of his life Mr. Gibbons, sen., suffered from epithelioma, and for the greater part of that time he was confined to the house. He had always been an active political man in Manchester, and was amongst the earliest supporters of the movement for the establishment of the Conservative Club. He was also the founder of the Alexandra Park Conservative Club, and its first president; at the same time taking a prominent part in the efforts since made to return a Conservative candidate to represent the south division of the city. Freemasonry found in him an ardent supporter, and after passing through the chair of the lodge "Fortitude," he was appointed Prov. Grand Director of Ceremonies for East Lancashire, and after holding that office for some years he became Prov. G. J. Warden. A Churchman, Mr. Gibbons proved one of the foremost supporters of numerous charitable organisations and movements in this city. Civic offices he was frequently asked to undertake, but always declined. The funeral took place on Monday at St. Margaret's Church, Prestwich, the remains of the deceased being interred in the same grave as those of his wife, who died about three years ago. Amongst those present were a considerable number of chemists of Manchester and the surrounding towns.

HASSKARL.—On January 5, within eight days of his British fellow-scientist and worker, Spruce, Dr. Justus Karl Hasskarl, the introducer of the cinchona-plant into Java, died at Cleve, in Germany, at the age of 82. Hasskarl was born on December 6, 1811, at Cassel, where his father, who traced his descent to a Swedish family which had settled in Germany at the time of Gustavus Adolphus, during the Thirty Years' War, held an official position.

During Hasskarl's childhood his father was transferred to Bonn, and there the subject of this note visited the Gymnasium. Botany was his favourite subject, and in 1827, when his school-days closed, he obtained a small appointment at the Botanical Gardens at Poppelsdorf, near Bonn. His drafting into the military service in 1830 intercepted his botanical studies for a couple of years, but as soon as he could free himself he returned to the profession to which his inclination drew him; and found a place as manager of Mr. Weyhe's horticultural gardens in Dusseldorf. Hasskarl conducted a botanical class in connection with the establishment, but it would seem that his employer refused to allow him to teach any but the most elementary principles of the science and that, as a result of differences on this point, Hasskarl was dismissed in 1834. In the meantime a paper of his on *Cunninghamia sinensis* had attracted some attention in scientific circles, and means were found to enable the young man to return to Bonn and finish his training at the University, where, in addition to botany, he studied medicine. During that time he contributed several papers to the *Regensburger Flora*, and received the high distinction of being appointed a member to the Regensburg Botanical Society. In the following year Hasskarl was thrown into



contact with Professor Goldfuss, the geologist, who made him his temporary assistant at the Natural History Museum. A wealthy Rotterdam shipowner who visited the museum, and appears to have had a certain ambition of figuring as a Mæcenas in a cheap way, offered to provide Hasskarl, who was longing for a chance of botanical-work in the Tropics, with a free passage to Java in one of his ships. The offer was eagerly accepted, and in 1836 Hasskarl sailed (*via* Baltimore) for Java. The journey took 210 days and the young man arrived at his destination practically penniless. Fortunately he attracted the attention of a compatriot, Dr. Fritze, chief of the Dutch-Indian Medical Service, who found him a berth at the Buitenzorg Botanical Gardens, not so famous then as they have since become. For nine years Hasskarl held that appointment. In 1846 he threw it up in anger owing to a misunderstanding with Teysmann, the director, about a certain improvement in position which Hasskarl claimed to have had promised to him, and returned to Europe, leaving the introduction of a systematic arrangement of the collections at Buitenzorg and the first catalogue of the gardens as mementoes of his work. Hasskarl, now a married man, established himself in Düsseldorf, earning his living by casual journalistic work, translations of scientific

books into German, and original work—among the latter a book: "Plantae Javanicae rariorae, adjectis nonnullis exoticis in Javae hortis cultis descriptae," which appeared in 1848. About that time the Dutch Government decided to send an expedition to South America for the purpose of collecting cinchona-seeds and plants. The command was offered to Dr. Junghuhn, also a German botanist, who had done excellent work in the Dutch Indies, where he appears to have made Hasskarl's acquaintance. Junghuhn, after long consideration, declined the post, and recommended Hasskarl, who accepted immediately, and left Holland in 1852.

Hasskarl was instructed by M. Pahud, the Dutch Minister of the Colonies, not to confine himself to the collection of *Calisaya* (then looked upon as the most valuable species), but to gather plants and seeds of as many varieties as possible. Early in 1853 the doctor set foot in Peru, and immediately proceeded, *viâ* Lima, to the Andes, which he crossed in May, by the Tarma road. Unfortunately he happened upon a track where the richer varieties of the cinchona were absent, and the only kinds he discovered were: one to which he gave the name of *C. orata*, but which has since been re-named *C. Pahudiana*, *C. pubescens* and *C. amygdalifolia*, of which he collected the seeds, and *C. lanceolata*, of which he secured plants. Hasskarl continued his journey to Cuzco, and thence to Sandia, in the province of Carabaya, on the Bolivian frontier, the home of the best *Calisaya* trees. Arrived too late in the season to gather any seed, he was forced to return without this prized variety to Lima, whence he forwarded the collected seeds by post to Holland. The plants were sent on *viâ* Panama in Wardian cases; but through some misunderstanding they were returned to Lima a few months later, and had all died when they arrived there. In the spring of 1854 Hasskarl again set out for Bolivia. War had broken out meanwhile between that country and Peru, and the Bolivian frontier was closed to all persons from the sister-republic. Hasskarl, under the assumed name of José Carlos Müller, therefore established his headquarters at Sandia, as near the Bolivian frontier as he could get, and thence sent out expeditions to collect *Calisaya* plants. In this he was fairly successful, and in June, 1854, he returned to the coast with 400 *Calisaya* plants (seeds he could not obtain), only to find, when Arequipa was reached, that the Dutch man-of-war which was to carry the collection to Java had left a few days previously. He caught up the ship at Callao and reached Batavia on December 13, 1854.

A few months after Dr. Hasskarl's return to Java, the ship in which his family were sailing from Holland to rejoin him foundered off the Dutch coast. The Doctor's wife and his four daughters were among the eighty passengers who perished in the waves. Shortly after this domestic calamity, Hasskarl had the misfortune to differ from Dr. Junghuhn, who had meanwhile returned to Java, and among whose duties was that of supervising the new cinchona-culture, on many vital principles of the system of cultivation. The breach between the two men became too wide to admit of satisfactory co-operation. Hasskarl therefore resigned, leaving Java in 1856 with all the honours of war, in the shape of many orders and crosses, and a life-pension of about 85*l.* a year. Since that time the Doctor has lived in retirement in Germany, the recipient of many official honours and much beloved by his neighbours in the little German frontier-town where he spent the last thirty years of his life. Dr. Hasskarl is survived by his second wife, a Dutch lady. During the last few years his memory almost entirely failed him, and he had long been quite incapacitated for work. It is a singular fact that the most valuable of all cinchonas, the *Ledgeriana* variety, was not introduced into the Indies by any of the collectors especially appointed by the British or Dutch Governments, but by a private trader in South America, the late Mr. Ledger, who collected the seeds with the assistance of an Indian carrier, one Manuel Inca Maemani. When the Bolivian authorities discovered the part played by this Indian *cascarillero*, they threw him into prison for assisting the foreigner in robbing the country of one of its chief riches, and there he perished miserably. Not a single one of the various species introduced by Hasskarl is nowadays planted in the East for commercial purposes. Notwithstanding the fact that Hasskarl's South American mission produced no permanently successful results, time has amply shown that the methods of cinchona-culture

advocated by him, and (to some extent) also by Teysmann, were scientifically correct. The portrait of Dr. Hasskarl which we publish is reproduced from one which appears in last week's *Indische Mercur*, of Amsterdam. We are also indebted to an article in the same journal by Mr. van Gorkom, ex-inspector of cinchona-cultures in Java, for some of the details of Hasskarl's career.

JEYES.—On December 18, Philadelphus Jeyes, chemist and druggist, late of Northampton. Aged 79.

SAUNDERS.—On December 22, Thomas Prideaux Saunders, chemist and druggist, of Weston-super-Mare. Aged 58.

WALKER.—The death is reported of Mr. Wm. Walker, chemist and druggist, George Street, Louth, at the advanced age of 75 years. Deceased was for forty years overseer of the parish, and was the oldest official of Louth Wesleyan Methodist Circuit, having been for fifty years a local preacher.

WILLIAMS.—On January 15, Mr. Cornelius Williams, chemist and druggist, Commercial Row, Pembroke Dock. Aged 64. Mr. Williams had been in business for more than thirty years, and was much respected.

New Companies.

MARKS' GOUT AND RHEUMATIC CURE SYNDICATE (LIMITED).—Capital 5,000*l.* in 1*l.* shares. Object: To acquire and work the secret processes of Henry Marks, relating to the manufacture of a cure for gout and rheumatism, and to carry on business as chemists and druggists, &c. The first subscribers (who take one share each) are:—H. Nieol, 21 Finsbury Pavement, E.C., accountant; G. E. Wood, Leadenhall Buildings, E.C., secretary; G. W. Drew, Leadenhall Buildings, E.C., secretary; Henry Marks, 6 Artillery Street, E.C., proprietary medicine manufacturer; C. J. Bass, Leadenhall Buildings, E.C., secretary; G. L. S. Roggiolini, 4 Tokenhouse Buildings, E.C., gentleman; G. H. Weitzmann, 78 Auckland Road, S.E. Registered without articles of association.

COLLINS' DIGESTIVE-FOOD COMPANY (LIMITED).—Capital 6,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers, vendors, &c., of foodstuffs of every kind, &c. The first subscribers (who take one share each) are:—W. R. Collins, 20 Khedive Road, E., engineer; G. R. Collins, 83 Buxton Road, E., traveller; J. E. Carlton, Marsh Ditton, Esher, gentleman; O. P. Macfarlane, 4 Cheveiton Villas, N., accountant; M. Widdowson, 37 Brownwood Road, N., clerk; J. Fitzpatrick, 147 Leadenhall Street, E.C., accountant; F. R. Jordon, 120 Chancery Lane, W.C., agent. The first directors are to be appointed by the above-named; qualification, 50*l.*; remuneration, 50*l.* per annum each and 5 per cent. on the profits to be distributed. Registered office: Rochester Buildings, 138 Leadenhall Street, E.C.

WILLIAM MATHER (LIMITED).—Capital 20,000*l.*, in 10*l.* shares. Objects: To purchase or otherwise acquire and take over as a going concern the business of a medical plaster maker and manufacturing chemist carried on by William Mather, at Dyer Street, Hulme, Manchester, together with the works where the said business is so carried on, and to carry on the business of manufacturers and dealers in medical plasters and manufacturing chemists in all their branches. The first subscribers (who take one share each) are:—William Mather, Dyer Street, Hulme, Manchester, manufacturing chemist; George Lowe, Dyer Street, Hulme; Arthur J. Pidd, 221 Chester Road, Manchester, chemist and druggist; Mrs. William Mather, Park Gate, Timperley; Daniel Lowe, 733 Rochdale Road, Manchester; Miss Sarah Dixon, Dyer Street, Hulme; Mrs. George Lowe, Chorlton-cum-Hardy, Manchester. There shall not be less than three nor more than seven directors. The first are William Mather and George Lowe. Qualification, 300*l.* Remuneration not stated.

A Fair Litigant's Bower.

INTERVIEW WITH MRS. ANNA RUPPERT.

"THE shades of night were falling fast when I hurried along Regent Street from Piccadilly Circus," writes the *C. & D.* representative who had undertaken to gather Beauty's version of her contests with the Pharmaceutical Monster; in other words, to find out what Mrs. Anna Ruppert had to say about her prosecutions for infringement of the Irish Pharmacy Act. "To the left, about half-way up the Quadrant, a bootmaker's and a hairdresser's shop on each hand, hangs a sign denoting the abode of 'Anna Ruppert,' and underneath it a box bearing the legend, 'Please take one.' Presuming the 'one' to refer to a pamphlet on the beautification of the person, I eagerly dipped my hand into the box, only to find it empty. Noting this evidence of the growth of the cult of beauty among the population, I passed into a corridor, and was invited by a page to step upstairs. On the first-floor landing there are two doors, one marked 'Mrs. Ruppert. Private,' the other 'Anna Ruppert, Ltd. Reception Room. Walk In.' While obeying the instructions on the second door my Sherlock-like glance observed that the paint of the letters 'Ltd.' was considerably fresher than that of the rest of the inscription. Whereupon, by the ordinary methods of deduction (as that famous exemplar has it), I concluded that the lady was in process of conversion into a limited company."

In the reception-room an elegant woman in a highly-fashionable yellowish gown and a military-looking individual were engaged in earnest consultation, and a lady-assistant invited me to step into the private apartment while Mrs. Ruppert attended to her client.

THE BUSINESS OF BEAUTY.

Both rooms were furnished in a style indicative of luxury overlapped by business, peculiar to some West-end shops. In the private room the flowery carpet and easy-chairs of various colours were neutralised by walls lined with white cardboard boxes containing, as I afterwards learned, those desirable treasures, the "New Popular Long-waisted American Corsets," which appear to take high rank among Mrs. Ruppert's beautifying-engines. In a corner a pile of ladies journals, wrapped up ready for posting, smacked of the "puff oblique," which the "lady journalists" who write for papers of this description so artfully know how to administer, with their cheap catch-phrases of "dreams of blue and gold," and the like.

When Mrs. Ruppert entered I explained to her my desire to learn as much as she would tell me of the methods and objects of her business, and of the causes and results of her frequent collisions with the Irish Pharmaceutical Society, and with private litigants.

"Well," answered Mrs. Ruppert, with great frankness, and in accents betraying her transatlantic origin just sufficiently

to impart a pleasing brogue to her conversation, "it's just this way—I never thought that there might be a difference between the English law and the American. Now, in New York, where I have carried on business for nigh sixteen years, we have no such law as in England. In New York State the Board of Health once took a bottle of my tonic and had it analysed, just because the papers had raised an outcry that Mrs. Ruppert's preparations contained bug-poison. After analysing the tonic the Board certified that it was not only harmless, but positively beneficial. Then I was left in peace. And it never came out until afterwards," she observed, slyly, "that the wife of the President of the Board of Health, was one of my best clients.

About two years ago I disposed of all my establishments in America and transferred my headquarters to London. I have twenty-two preparations, and never thought I was offending against the law by selling any of them; but after my place had been open a short time I received a notice from the

WHAT-D'YE-CALL-'EM SOCIETY,

telling me that I was infringing the Pharmacy Act by selling poisons without a qualification. So I thought I would go to see the Secretary, and I had an interview with a gentleman at the Society's House in Bloomsbury Square."

"Whom did you see?"

"Well, now, if I haven't forgotten his name; but he was a very pleasant, courteous gentleman, middle-aged, and wore whiskers."

Summoning before my mind's eye images of the men of light and leading in Bloomsbury Square, I endeavoured to identify Mrs. Ruppert's interviewee. But the visions of middle-aged, affable, whiskered gentlemen at No. 17 crowded in upon me in such numbers that I gave up the attempt. Mrs. Ruppert, however, assured me that the gentleman was "one in command."

Having been informed of the gravity of her offence, the lady at once surrendered, and promised to conform with the law. "But," she had ventured to ask the great man, "might she continue to send those of her remedies which contained poison out of England? And would it also be permissible for her to engage a qualified pharmacist to conduct the sale of such goods in London?" The affable gentleman in command had replied to the first question that he didn't care how much she sent out of the country, but distinctly declined to commit himself to any opinion on the second, and the lady appears to have come away pondering how to reconcile the demands of the inexorable law with the continued sale of her preparations. Her conversion into a company, I thought, might be traceable to her inward communings on this point, but from what the lady afterwards said that does not seem to have been so



[NO MAN OF ERIN SHOULD OFFER ME HARM.]

Meanwhile Mrs. Ruppert continued her story:—

"After my interview I determined strictly to keep the law, but when I opened my Dublin depôt I thought I was perfectly safe in acting upon the Bloomsbury gentleman's statement that I might send as much of the bichloride lotion out of the country as I liked. I never knew there was any law in Ireland at all. I thought it was a foreign country. But the Irish authorities didn't treat me anything like as fairly as the London ones. They might at least have given me notice. Not they! I am a lone, unprotected woman," continued Mrs. Ruppert, with martyr-like resignation, like a youthful personification of Mrs. Gummidge; "and at the time of the first prosecution I wanted to appear in court personally, to tell the Judge that I had broken the law in ignorance, but I was prevented by illness. I was lying flat on me back for two months, and the doctor wouldn't allow me to go on any terms. But this week, when they prosecuted me for the third time, I went. I have just returned. I had only two days' notice, and I have been travelling now for forty-eight hours without sleep or food; but I guess I did surprise them when I appeared in court in my innocence. If there was any sublimate in the lotion for the sale of which I am now prosecuted, it was an accident, for I gave orders that all the bottles containing poison were to be returned. I am going to see my solicitor presently about another case, which is coming on in London; so you see I am up to my ears in law."

While waiting for the interview I had looked through a "physiognomical study of Mrs. Ruppert, by Professor Annie Oppenheim, B.P.A.," which forms the preface to a "Book of Beauty" issued from the establishment. Among the professorial dicta regarding the lady I remembered having read that

THE TIP OF HER NOSE INDICATED SELF-DEFENSIVENESS, and meant that, "though she never attacks, yet, as regards her just rights, she can hold her own with anyone." Also, that the length of Mrs. Ruppert's throat marked great irritability when under restraint. Had the Dublin Solons been acquainted with these characteristics they might have hesitated before bringing down upon them the wrath of the tip of that pretty nose or the irritability of that throat. "As it is," I thought, for the Magistrate's decision was not yet known, "they seem to be rushing blindly to their doom."

"I won't deny," continued the combative lady, "that without the sublimate my lotion is not so effective as with it. But I can still sell it through chemists, and that is what I am going to do now. This also applies to my other preparations—soaps, powders, manicure goods, and so on. Meanwhile, I have been looking out for a qualified lady-pharmacist to take charge of the sale department here, but I can't find one. So I am afraid I shall have to engage a man for that work, after all."

"What about your conversion into a company?"

"Oh, that's not settled yet. The prosecutions have nothing to do with it. The fact is, a legal friend of mine suggested the idea. I wasn't in love with it, but I said at last that if they could find 30,000*l.* and engage me as a salaried manager, I would agree. They have until January 16 to get the money."

"Are you satisfied with your British business so far?"

"Indeed I am. My lectures on natural beauty or the secrets of the toilet (to ladies only) have been a great success. Some of them were so crowded that

DUCHESSES HAD TO SIT ON SMALL STOOLS

in corners. I reckon I have now 18,000 or 19,000 clients in this country. All ladies? My, no! Dooks, noble lords, and M.P.'s are on my list. I cured Sir —, the well-known politician, of a most annoying skin-affection lately. I have sometimes asked my gentlemen-clients if they wouldn't mind giving me a testimonial, but the answer is most always the same: 'I should be delighted, I'm sure, Mrs. Ruppert, but the boys at the club *would* chaff me so'—and they refuse."

"Do you profess to cure skin-diseases generally?"

"Not any hereditary affections. But all others I can treat, and treat successfully, especially such as are caused by neglect of ordinary natural laws relating to the effect of cold or heat upon the skin. Now the doctors," continued

Mrs. Ruppert, with what in a less charming person would have seemed perilously like a sniff, "have treated me most unfairly. Ernest Hart's paper attacked me in a most ungentlemanly way, and when I wrote a nice letter to the Editor in reply to the charges he refused to insert it. I have offered to demonstrate my power of curing skin-complaints, but they wouldn't listen. I know of a case of lupus now, given over by the Profession (wouldn't you like to see it?—No?), which I am confident I could cure. Both sides of the face are affected. I have offered to clean one side of the face and leave the other untouched, but all in vain. Yet plenty of people believe in me, and that reminds me that I have not apologised to you for receiving you here, in my corset-room. But, you know, I have my place below full of ladies waiting to consult me. They wouldn't care about being seen. Ladies are so shy."

"You are not a medical lady, are you, Mrs. Ruppert?"

"So far as graduating is concerned, no. But that is only because I had no money. You think so much more of fine-born people in this country than we do in 'Murrica that you may look down upon me when I tell you that I am of very humble parentage. When I was a child, my complexion was not a particularly good one. In fact, I had a sallow birthmark. My mother tried to improve it by the application of domestic remedies, but without effect. When I was 14 years old I heard of a French skin-specialist, who had just arrived at St. Louis, and went to see him. He said he could cure me, but his fee was altogether beyond my means. But I found that he was in need of someone to take charge of his patients' hats and capes, and he agreed to improve my complexion in return for my services as an attendant. I got promoted to the chemical laboratory pretty soon, and, young as I was, I learned a good deal of my employer's processes of treating skin-affections. He fulfilled his part of the bargain, and under his treatment the birthmark rapidly began to diminish."

A BLOW OF FATE.

"But," said Mrs. Ruppert, with a dramatic interlacing of her elegant finger-tips, "just when I began to know the remedies thoroughly, and the birthmark had almost disappeared, my employer committed suicide."

There seemed to be a suspicion of feminine resentment in her voice, as though she might have forgiven the man's inconsiderate exit had it been deferred until after the complete disappearance of the mark.

"There I was, a young girl with \$11 capital. I took a little room and set up as a skin-specialist, spending the residue of the money in advertising. That brought me in about \$25, and gradually I prospered and took to lecturing. From St. Louis I started branches in New Orleans, Chicago, and New York. I had no time to take a medical degree, but I have nevertheless acquired a most extensive knowledge of skin-diseases, and I possess one of the finest private libraries on this subject."

"My remedies are now sold in Paris, where I have a branch, and in Berlin, where the English store retails them. The German newspapers made a great row. They said my 'face-bleach' was nothing but corrosive sublimate, tincture of benzoin, and rose-water. Well, I don't deny it. Nevertheless, the sale is increasing every month, and so is that of my other goods. I have a manageress in every branch, but I visit each place frequently, so that people may know that there is a real genuine Mrs. Ruppert in the business. Each manager has a toilet-soap called after her. There is a 'Claire' soap, a 'Carrie' soap, a 'Maude' soap, and so on."

"A photo to illustrate your article? Certainly. Page, get those two stereoscopes. Will this do?" queried the lady, with a sweet smile, as she handed me the picture of which the representation overleaf is a reduced far-simile.

I murmured something about returning it when the block had been made, feeling guilty of a *gaucherie* in making the offer, and of a still greater one when, in answer to the lady's suggestion that I might keep it as a memento of the interview, I responded that it would be the loveliest thing in the editorial room.

MORE LAW.

As I took my hat, Miss Claire, the attendant, came to announce another caller. "The solicitor?" said Mrs. Ruppert. "I'll be with him in a minute. My goodness, what

a lot of work to get through! I often work eighteen hours a day, and fall asleep here at night, pen in hand, just as I am sitting down to write. You're the first newspaper-man who has called upon me to get at the truth about my business. Thank you so much!"

Besides the portrait and an assortment of literature on Mrs. Ruppert's specialities, I carried home with me the conviction that, whatever the merits of her lawsuits, the lady I had interviewed is as clever and resourceful a woman as one is likely to find in a day's journey.

CHEMICAL-MANUFACTURERS AND THEIR WORKMEN.

A MEETING of the Chemical Section of the London Chamber of Commerce was held at the office of the Chamber, in Eastcheap, on Friday, January 12, to consider the new special rules for chemical-works proposed by the Home Office. Mr. Charles Wightman, Chairman of the Section, presided, and the comparatively small meeting included Messrs. S. B. Boulton, C. H. Tappley, Thomas Tyrer, David Howard, Thomas Christy, E. T. James, William Thorp, Thomas Bennett, Charles McCombie, and Dr. Rud. Messel.

Mr. WIGHTMAN said that every member of the Section had received a copy of the proposed new rules, which were unexpectedly simple. In accordance with the decision arrived at at a previous meeting, the present gathering had been called as soon as the rules were made known, to consider what action ought to be taken, and he invited the members of the sub-committee, which had been in communication with the Home Office, who were present at that meeting to open the discussion by placing the Section in possession of their views. These gentlemen were Mr. D. Howard, Mr. Tyrer, and Dr. Messel.

Dr. RUD. MESSEL said that the sub-committee had recommended that no detailed rules should be framed at all but that the factory inspectors should be given large discretionary powers, and that each individual case in which the conditions of labour were considered objectionable by those inspectors should be dealt with on its own merits. The Home Office, however, had not seen its way to fall in with that recommendation, but had elaborated the set of rules now before them. These rules, it was right to say, had been framed after consultation with the proprietors of the alkali and other works most concerned, who had pronounced them acceptable. So far as the branches of the chemical-trade represented by that Section were concerned, he considered that there was nothing in the rules with which any great fault could be found. He was especially glad to find that a clause (Rule XII., THE CHEMIST AND DRUGGIST, January 13, page 55) had been inserted giving employers a legal remedy against workmen who

WILFULLY AND RECKLESSLY VIOLATED

the regulations for their own protection. Rule I. also needed some amendment.

MR DAVID HOWARD agreed that in the main the new regulations were thoroughly good. Those present at the meeting that day could certainly not object to them, for the rules presented no precautions which were not already voluntarily practised in their factories. It was just as well that their less scrupulous competitors, in whose factories the conditions of labour fell short of the new standards, should be compelled to forego such advantages as they had derived from the absence of proper precautions. He thought that the fact that workmen and employers alike would be liable for infringement of the rules deserved special recognition. With reference to the first rule the speaker considered that the onus of proving the practicability of raising existing vessels to the level of 3 feet above ground should fall upon the authorities.

Mr. THOS. TYRER agreed with the two foregoing speakers.

The CHAIRMAN said that he considered the rule demanding the covering of all vessels unworkable if strictly interpreted. It was not practicable to cover all vessels in which minor chemical operations were carried on. He suggested that a resolution should be proposed agreeing to a recommendation

of the sub-committee, that the authorities should be requested to alter Rule I. so as to read:—

Every uncovered pot, pan, or other structure, containing liquid of a dangerous character, shall be so constructed as to be at least 3 feet in height above the ground or platform, or shall be securely fenced to the satisfaction of the inspector.

Instead of, as at present:—

Every uncovered pot, pan, or other structure containing liquid of a dangerous character, shall be so constructed as to be at least 3 feet in height above the ground or platform. Those already in existence which are less than 3 feet in height, or in cases where it is proved to the satisfaction of an inspector, that a height of 3 feet is impracticable, shall be securely fenced.

This suggestion was unanimously carried, as was also one prefixing the word "uncovered" to the word "pots" in the second and fourth rules. A letter was then ordered to be written to the Home Office, expressing the Section's high appreciation of the rules, trusting that they would fulfil the objects aimed at, and suggesting the "very minor alterations" already described.

The CHAIRMAN, in the course of his remarks, commended the Editorial note on the subject of the new rules which appeared in that week's issue of THE CHEMIST AND DRUGGIST, and in which the Section was urged to adopt a conciliatory attitude. He thought that it was mainly owing to the action of the Section that the valuable Rule XII. had been added.

Mr. HOWARD observed that he should like to placard that rule in vivid red all over his factory. Again and again he had been compelled to discharge workmen for gross neglect of their own health and safety, and though he was sure that many of them wouldn't have the faintest idea what the rule referred to, he knew that they all had some vague notion of the meaning of "forty shillings."

Trade Notes.

THE J. Ellwood Lee Company, of Conshohocken, Pa., for whom Hatrick & Co. (Limited), 31 Snow Hill, E.C., are agents, received at the Columbian Exhibition awards for flexible woven catheters and bougies, antiseptic gauze in glass box jars, surgeons' ligatures and braided and twisted silk, Lee's metallic splints, and hospital supplies.

MESSRS. OPPENHEIMER, SON & CO. (LIMITED) have this week issued to wholesale and retail chemists new terms and discounts, and they are endeavouring to secure the support of all wholesalers to an agreement which has for its object the formation of a uniform basis of prices. That is to say, every retailer is to get Messrs. Oppenheimer's goods at a fixed price, whether he buy a fraction of a dozen or a dozen, &c. These prices are quoted in their advertisement in this issue. The primary object of the agreement is to put all retailers on the same footing, while it will, if wholesale houses respond favourably, secure for the latter a living profit. Already several wholesalers have willingly signed the agreement, and if retailers carry out the spirit of it much cruel cutting may be prevented.

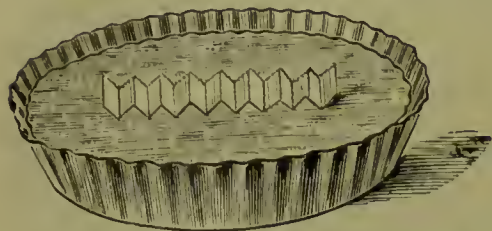
"THIS very welcome Diary" is how the *Canadian Pharmaceutical Journal* speaks of ours for 1894.

WHAT SAY KOCH AND KLEIN?—"John McDuffey (charged with vagrancy), what can you say for yourself?" "Not guilty, your honour." "What is your business?" "A professor of bacteriology." "Ten dollars and twenty days. No visible means of support."—*American Analyst*.

At the last meeting of the Linnean Society immediately before the death of Dr. R. Spruce, Mr. A. Gepp read a paper by him on the *Hepaticae* collected by Mr. W. R. Elliott in the islands of St. Vincent and Dominica, and took occasion to describe in some detail the nature and extent of Dr. Spruce's work, which he characterised as a most careful and excellent contribution to botanical science. The paper was accompanied by a series of minute and beautiful drawings.

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TRADE TERMS:
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They are lighted
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R. & N. POTT **PURE-BREWED VINEGAR.**
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Guarantee as to Purity attached to All Casks,
Bottles, and Invoices.

DAY'S BLACK DRINK

Is the most popular and certain Veterinary Remedy in the World. Don't confound it with Elixirs, Draughts, &c., which for obvious purposes are called "Black." The title is a registered one, but many "black" things are offered in its name; the only genuine is prepared by

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THE BEST THAT CAN BE PRODUCED.		
PURE CRUSHED LINSEED	18/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
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PURE FULLER'S EARTH	14/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
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To Railway Stations within the radius of 200 miles from London (and allowance made for distance beyond) on 112 lbs. and upwards of above articles.		

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are valuable and most serviceable preparations. We
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Editorial Comments.

ANTIPYRIN AND ITS RIVALS.

THOUGH chemically not related to each other, antipyrin, antifebrin, and phenacetin are medicines which have enjoyed a considerable degree of therapeutic rivalry, and of the many synthetic remedies introduced within the last decade none have secured so abiding a place in permanent therapeutics as these three substances. To say that they are popular is to state what is only too evident, for the public have learnt to appreciate their peculiar analgesic properties, and antipyrin, at least, has become a household remedy. There is, probably, no parallel example in materia medica of an unquestionably potent compound, possessing a specific action, taking the public fancy so quickly after its introduction. As might be expected, some distrust has followed the popularising of antipyrin and its two rivals. A year or two ago we reported the case of a girl who had been in the habit of taking antipyrin as an anti-neuralgic medicine, and she pushed it too far one night with a fatal result. Her heart was weak, and the doctors said the combination of that with a large dose of antipyrin induced death. This is not an isolated case. In private practice there have been many grave cases of poisoning induced by one or other of the three analgesics, and reports were becoming so frequent that the British Medical Association deputed its Therapeutic Committee to inquire into the whole matter. The committee was presided over by the accomplished pharmacologist Professor D. J. Leech, of Manchester, and the various branches of the Association assisted in the inquiry. Experience in private practice was particularly aimed at, because a wider licence than obtains in hospital practice is there given to patients in using the drugs, and consequently ill-effects were more likely to be seen there. The points of the inquiry were—*first*, the amount of experience in the use of the drugs possessed by the observer; *second*, the doses habitually given; *third*, the nature of the ill-effects; *fourth*, their frequency; and, *fifth*, opinions as to the usefulness of the drugs. As 220 reports were sent in the inquiry has been sufficiently comprehensive to form a conclusive statement regarding the behaviour of the drugs.

Although it did not require this inquiry to prove it, still the fact remains that it did show antipyrin to be the most extensively used of the three analgesics. What is more important is that it conclusively proves that antipyrin is a much safer drug in every way than antifebrin—a fact which will surprise many who have regarded the latter as less toxic and almost as certain in its action as antipyrin. We wish to emphasise the relative merits of the two compounds, because it is within our experience that a large proportion of the headache or neuralgia powders sold to the public are composed of antifebrin. As to the ill-effects of antipyrin it is noteworthy that 73 per cent. of the reporters have never observed them in their practice; and in the case of those who have observed grave symptoms there is no difficulty in tracing the trouble to excessive dosage. The ill-effects produced were collapse and death (rheumatic fever) when 80 grains were given in five hours; collapse following such doses as 30 grains twice given, heart-weakness, depression dyspnoea, loss of speech, temporary mania, cyanosis, &c. with doses of 15 to 20 grains repeated at intervals of from an hour to four hours. Cyanosis was rarely observed. The first point which strikes us in the report is that those who

give antipyrin in doses of 10 grains or under have no experience of ill-effects, and that it is those who give it in larger doses or who allow it to be taken too frequently who have supplied the committee with the above particulars. The same practically obtains in the case of antifebrin, but here the grave symptoms followed quite orthodox doses—viz., within the official limits of 3 to 10 grains—and the ill-effects were rarely free from cyanosis. Moreover, the committee records the fact that antifebrin-poisoning is much more frequent than antipyrin-poisoning. In the latter case 27 per cent. of the observers only have met with such cases, but in the former the percentage is 44; in fact, the committee puts the matter forcibly in saying, "Ill-effects following the administration of antipyrin are both absolutely and relatively, more frequent in their occurrence than is the case with antipyrin." It is also added that this is not due to excessive dosing alone, but to "its being less safe and less constant in its action than antipyrin." On the dose point the committee is quite stringent: "To give antifebrin in doses of 5, 6, 8 or 10 grains, still more to repeat these after a short interval, is a highly injudicious procedure. Such doses are altogether excessive."

There is little to be said about phenacetin, except that it "appears to have a notable freedom from injurious action." Seven out of 80 observers report ill-effects, and it may be noted that 5 grains every three hours for three days has induced collapse; but the "drug appears to be in exceedingly good repute with those who have any extensive experience of it, more especially as an analgesic." We may add that the man who used phenacetin most extensively, perhaps, was the late Sir Andrew Clark, who had great experience of the action of, and unbounded faith in, the drug. He usually prescribed 10 grains every hour to begin with, for four doses, but ordered even larger doses when he had the opportunity of closely observing the effect. Whether the comparative safety of phenacetin is due to its slow dissolution or to its chemical constitution we have no evidence to show, but in all probability safety does not lie in slow dissolution, for acetanilide is as insoluble a body as phenacetin. The lessons which pharmacists may learn from the inquiry are that antipyrin and phenacetin should generally be given in doses of 5 to 10 grains, and should not be repeated oftener than every four hours. Antifebrin is unsafe in doses over 5 grains, and 2 grains of it is equal to 10 grains of antipyrin, but less certain in action. It will be necessary for the Pharmacopœia authorities to alter the dosage of all three analgesics, especially the higher limit of acetanilide, which is virtually toxic.

THE RULES ON LABOUR IN CHEMICAL-WORKS.

WE are glad that the Chemical Section of the Chamber of Commerce, in dealing with the proposed new rules for chemical-works on Friday last, adopted that attitude of conciliation which we recommended to them last week. But wisdom's gain was sensation's loss, for from a mere journalistic point of view, the meeting was deplorably disappointing in its tameness. It is Rule XII. that has mainly wrought this transformation, by ordering that, where a workman fails to co-operate in observing the precautions for his safety prescribed by the rules, he shall be liable to a forty shilling fine upon summary conviction. That proviso gives reasonable employers all they want, and is clearly a just one. The constant proximity to dangerous compounds is apt to render workers culpably neglectful of their own safety. The hands are often none too anxious to observe sanitary precautions which cannot be neglected with impunity and for

the compliance with which opportunity is afforded at the works. It is only due to Mr. David Howard, who was believed to be not specially favourable to the new rules, to say that we fully agree with the writer of the letter which appears in our Correspondence columns that it is mainly owing to the action of the Chamber's sub-committee in general, and of Mr. Howard in particular, that this clause was added to the rules, and the other modifications introduced into them.

If the "New Democracy" does not yet know its rights it is certainly not for want of hearing them expounded, and we should like to suggest to some of the expositors that they might occasionally throw into their monitions a hint that their hearers have duties to render to Society as well as rights to extract from it. The alkali-worker who will not don his "muzzle," the operative who is too slothful to pull on his gloves when handling chrome, or the chemical-worker who larks about pots of mordant solutions, can hardly expect compensation in case of accidents. Chemical-factories cannot be ideal places to spend one's life in under any conditions. It is not likely that legislation can make them so. If the ideal social State of the future should still require the use of chemicals, they will no doubt be turned out under conditions which will enable their producers to enjoy the beauties of Nature and Art while engaged in their occupation. Until then men will probably be found ready to hire themselves out to perform chemical labour in less idyllic surroundings. The more harmoniously workers and employers co-operate to render those conditions as little irksome as possible, the greater the gain to the community.

A HUNDRED NEW REMEDIES.

SOME time ago we questioned a remark by an American contemporary to the effect that there are at least one hundred remedies of synthetic origin now in general use that were not known ten years ago. *Notes on New Remedies* now responds with the following list of one hundred and twenty-four:—

Acetanilide	Euphorin	Piperazine
Agathin	Enrophen	Pyridine
Alpha-oxynaphthoic acid	Exalgin	Resorcin
Alumol	Formalin	Resorcinol
Amylene hydrate	Formanilide	Saccharin
Analgen	Gallacetophenone	Salacetol
Antipyrin	Gallo-bromol	Salicylamide
Antiseptol	Gallol	Saliphen
Antispasmin	Guaiacol	Salipyrin
Antithermin	Guaiacol-carbonate	Salocoll
Aristol	Homatropine	Salol
Asaprol	Hydroquinone	Salaphen
Asepsin	Hypnal	Saprol
Benzanilide	Hypnone	Solntol
Benzonaphthol	Icithyol	Solvcol
Benzosol	Iodol	Sozal
Betol	Iodopyrin	Sozoiodol
Bromal hydrate	Kairin	Styracol
Bromoform	Losephan	Sulphaldehyde
Bromol	Lysol	Sulphaminol
Chinoline	Metalddehyde	Sulphonal
Chloralamide	Methacetine	Tetronal
Chloral ammonium	Methylal	Thalline
Chloralose	Methyl chloride	Thermifagin
Chlorphenol	Methylene-blue	Thilanin
Crocin	Methylene chloride	Thioform
Cresol	Methyl-violet	Thiol
Cresolol	Microcidine	Thioresorcin
Cresin	Naphthalene	Thiosinamin
Cresol	Naphthol	Thymacetin
Cresol-iodide	Naphthopyrin	Tolpyrin
Cresotic acid	Orexine	Tolysal
De netin	Oxychlorinseptol	Tribromphenol
Dul in	Paraldehyde	Trional
Ethyl bromide	Pental	Tumenol
Ethyl chloride	Phemacetin	Uralin
Eugenol	Phenetol	Urethane
Eugenol-acetamide	Phenocoll	

This is an interesting list, but our contemporary's explanation was quite necessary. "There are scores of acetanilide derivatives and compounds," says *Notes*, "having local, national, and even international fame; many salts of antipyrin, chinoline, naphthol, salicylic acid, thalline, &c.; and as large again a list of new remedies which are chemicals but not synthetic products. A critical examiner may find some products named in foregoing list which are not strictly of 'synthetic origin;' but even by omitting any of this kind the list would still exceed the desired one hundred. It may also be urged that some of these products have been in use longer than ten years. This is the case only with naphthol, which was first recommended as an antiseptic in 1881; but we have omitted several legitimate new naphthol compounds, so that a balance is maintained. Other products—as acetanilide, guaiacol, aniline colours, pental, &c.—were known as chemical products, but their medical application dates back less than ten years." The original statement was that there are "one hundred remedies of synthetic origin in general use." In the above list we do not find a dozen which have received pharmacopœial recognition, and certainly half of the substances in the list are rarely used, while many of them can scarcely be said to have passed the experimental stage, far less reached pharmacy. It would be interesting if pharmacists would name, on post-cards, those remedies in the list which they have stocked or been asked for. We shall be glad of a general response to this inquiry.

SQUIRE'S COMPANION.

A new edition of this popular commentary on the British Pharmacopœia is in the press and will be published in March. We have seen the proof sheets and are able to state that the text has been reset from beginning to end. The authors are to print the official text in bold type, and their own comments in smaller type well-leaded, which is as easily read and shows the reader at once what is official and what is not. The authors have collated from their laboratory books a large mass of valuable critical comments upon official and non-official drugs which have not yet been published, and this additional matter has expanded the text by 100 pages. We shall refer more fully to the criticisms and data when the "Companion" is published. We may add that data from six new Pharmacopœias, including the recently published U.S.P., are included. The "Companion" has so far overgrown the original half-guinea limit that the authors propose to make the price 12s. 6d. in future.

A NEAT ADVERTISEMENT.

Mr. Albert Henry mentions in the *Pharmaceutical Era* a neat way of advertising face-powder. He says that many ladies object to the use of powder, but would use it if properly presented to them, merely as a means of avoiding the objectionable glistening appearance of the skin in warm weather. He suggests, therefore, the free distribution of little round pieces of chamois marked—

I am FREE
To you. To avoid a
glistening appearance of the
skin in warm weather
use me with a little
Vegetable Face Powder.
Compliments
of
J. B., the chemist.

This, doubtless, would help to sell the face-powder; but Mr. Henry does not say how the chamois circles are to be got. We would suggest a saddler's punch, $2\frac{1}{2}$ inches diameter, to cut the leather, and an india-rubber stamp to do the printing.

SUCCESS OF THE WORLD'S FAIR.

The World's Columbian Exposition has after all been a success, intrinsically and financially. The official report is not yet issued, but Mr. Sadler, our consul at Chicago, in a despatch to Lord Rosebery foreshadows its best features. The total admissions to the grounds were 27,539,521, divisible roughly into 6,000,000 "dead-heads" and 21,000,000 visitors who paid 50 cents each. At the Centennial Exhibition, in 1876, there were only 9,610,966 admissions, but Paris in 1889 had a total of 28,149,353 visitors. They estimated 47,750,000 as the Chicago total. The figures of debit and credit are, however, the most important. According to Mr. Sadler the total receipts to the twelfth of November were 5,804,365*l.* and the total disbursements 5,266,090*l.* To this latter, however, must be added contributions and appropriations from the United States and foreign countries of some 2,700,000*l.*, which were of the nature of gifts. A final balance of 384,018*l.* is expected to remain for distribution among the shareholders. The last two months of the exposition may be said to have saved it. Then the attendance increased enormously; the prejudice against Chicago had given way to a lightly veiled enthusiasm, and had it not been for the financial crisis in the United States the exposition would in every respect have beaten the record.

ETHYLENE BROMIDE.

At a recent meeting of the Philadelphia College of Pharmacy, Mr. G. M. Beringer reported that the ethylene bromide—strictly speaking, di-brom-ethane—as supplied by the German manufacturers, is a slightly brownish coloured liquid, due to traces of bromine, sp. gr. 2.163 at 21° C., crystallising at 10° C. He exhibited a sample which had been redistilled by Mr. Chas. Bullock. About 20 per cent. of the commercial product distilled below the boiling-point, showing that it is far from pure. The purified article is a heavy colourless liquid, sp. gr. 2.166, having a pleasant almost chloroformic odour, boiling at 127° C. (260° F.), and leaving a greasy stain on paper persisting for some little time. We do not know how far Mr. Beringer's description applies to the English article, but it is desirable that the matter should be looked to by English pharmacists.

NEW BOOKS.

- Aikman, C. M., B.Sc. [Editor].—*Johnson's Elements of Agricultural Chemistry*. 6s. (Blackwood.)
Behuke, E.—*Stammering: Its Nature and Treatment*. Fourth edition. 16mo. Pp. 48. 1s. (Unwin.)
Boxall, R.—*The Use of Antiseptics in Midwifery: Their Value and Practical Application*. 8vo, sewed. 1s. (Lewis.)
Campbell, H.—*Headache, and other Morbid Cephalic Sensations*. 8vo. 12s. 6d. (Lewis.)
Duane, Alexander, M.D., assistant surgeon to the New York Ophthalmic and Aural Institute.—*The Student's Dictionary of Medicine and the Allied Sciences*. Pronunciation, Derivation, &c. 21s.
Gamgee, Arthur, M.D., F.R.S.—*A Textbook of the Physiological Chemistry of the Animal Body. Including an account of the chemical changes occurring in disease*. Vol. II. (the physiological chemistry of digestion). Pp. xx., 528, 2 plates, 1 table. 8vo. 18s. (Macmillan.)
Goodhart, J. F.—*On Common Neuroses: The Neurotic Element in Disease, and its Rational Treatment*. Second edition. Crown 8vo. 3s. 6d. (Lewis.)
Heaviside, O.—*Electro-Magnetic Theory*. Vol. I. 8vo. Pp. 480. 12s. 6d. ("Electrician.")
"Hygiene," the Editor of.—*Patent, alias Quack, Remedies*. Small 8vo, paper covers. Pp. 164. 6d. (Beaumont & Co., Limited.)
Johnson, J. J. and J. H.—*An Epitome of the Law and Practice connected with Patents for Inventions*. Second edition. Small 8vo., paper covers. Pp. 162. 2s. 6d. (Longmans.)
Liebig Company's *Practical Cookery Book*. Post 8vo. Pp. 104. Price 1s.
Official Guide to the Museums of Economic Botany at the Royal Gardens Kew. No. 3 (Timbers). 3d. (Eyre & Spottiswoode.)
Parke, L. C.—*Infectious Diseases*. 12mo. Cloth. 4s. 6d.
Terry, Geo.—*Pigments, Paint, and Painting*. Crown 8vo. Pp. 392. 7s. 6d. (Spou.)

The Winter Session.

CHEMISTS' ASSISTANTS' ASSOCIATION.

THURSDAY, January 11, was devoted to short papers. The first of these was on

COMPRESSED DRUGS

By E. J. Parry, B.Sc., and P.A. Estcourt, A.I.C.

A number of pellets (the word pellet being used for convenience to embrace all the fancy names which are given by various makers to compressed drugs) were examined, and although manufacturers state that excipient is necessary in their preparation to increase the solubility, in most cases it was found to be objectionable, and in some cases insoluble excipients were found to have been used with perfectly soluble drugs.

Potassium-chlorate pellets were found to contain traces of chlorides, sodium-bicarbonate pellets to contain 3 per cent. and 4 per cent. to 8 per cent. of carbonate, and soda-mint pellets to contain a large amount of carbonate and less ammonia than stated on the label.

A number of pellets of ammonium chloride were weighed and estimated by titration with silver nitrate.

Three makes of pellets guaranteed to contain 3 grains of NH_4Cl in each yielded 3.08, 2.66, and 3.03 respectively, and two guaranteed to contain 5 grains in each were found to contain 5.79 and 4.70 respectively. Five samples of saccharin pellets were examined. These were sold as containing $\frac{1}{2}$ grain in each. They were estimated by oxidation to sulphate with KNO_3 and KHO and the sulphuric acid determined with barium chloride. The quantities found were respectively 0.66, 0.54, 0.51, 0.61, 0.44. Five-grain sulphonal pellets were returned as 4.80, 4.95, 4.74, and 5.30; and 5-grain antipyrin pellets were found to contain 4.29, 4.86, 4.31, and 3.80 respectively.

Some quinine pellets were found to contain the acid sulphate, others the neutral. The result of the examination of these was satisfactory, one sample only out of four containing a slight deficiency.

A short discussion followed the reading of this paper.

The next paper was a query—

MAY DISPENSERS DEViate FROM A LITERAL TRANSLATION?

By C. Morley.

Considerable discussion and correspondence had lately taken place as to what should be dispensed when *pil. opii gr. j.* is ordered. An argument in favour of taking *pil. opii* literally, as intending *pil. saponis co.*, P.B., of which it is the synonym, is the fact that only one of the London hospitals contains a pill of pure opium, and that medical men trained in the metropolis could recognise no formula but the official one. As, however, among chemists there is practically a consensus of opinion that a pill containing 1 grain of powdered opium is meant in such a case, it is wisest to dispense such. How far, too, are chemists bound to recognise the two Pharmacopœias which preceded the present one? If they obey to the letter, when *liq. atropinæ* is ordered they should not dispense *liq. atropinæ sulpb.*, but *liq. atropinæ* 1867; when *tinct. quiniæ* is ordered they must not dispense *tinct. quiniæ*, which is no synonym of *tinct. quiniæ*, but the tincture containing the sulphate would have to be dispensed; *inj. morphinæ hypoderm.* is not a synonym for the present preparation, so for that the 1-in-12 injection would have to be sent out.

The PRESIDENT said he should certainly send out a pill containing 1 grain of powdered opium if *pil. opii gr. j.* were ordered. Mr. Morley had hardly emphasised sufficiently the fact that *pil. opii* was, after all, only a synonym in the B.P. Once in a law-case, however, the question was raised as to what should be used if a preparation was ordered the name of which was a synonym for a B.P. preparation, and it was decided that the official one was intended.

Mr. ROE said he had found it the custom of chemists to dispense, and of doctors to intend, *pulv. opii gr. j.* in a pill when *pil. opii gr. j.* ordered. In cases of this kind what was necessary was that common sense should prevail. Doctors did not spend enough time in the study of phar-

macy to make sure of every little detail, and the chemist must take that into consideration. Often a word with the patient would help him over a difficulty.

Messrs. DAVIES, RALPH, JAMES, and BARNARD expressed similar views.

Mr. GANE said that probably in 99 cases out of 100 a pill would be meant containing the 1 grain of powdered opium, but the hundredth case would invest the chemist with considerable responsibility. One correspondent had taken the opinion of seventeen doctors in this matter; eight had agreed that the powdered opium was meant, but the rest had doubts as to what should be dispensed. An eminent pharmacist had expressed the opinion to him that when *pil. rhei. gr. iv.* was ordered, the compound pill should not be dispensed, but a pill containing 4 grains of simple powdered *rubarb.*

Mr. MORLEY replied.

SUNDAY OUTINGS.

Mr. D. S. DAVIES proposed that "the Council be requested to take into consideration the desirability of organising Sunday outings for the Association, and to make arrangements for the same."

The PRESIDENT said the resolution had been brought forward before and referred to the Council. As the resolution, however, had previously been brought forward without notice of it being given, it was felt to be desirable to again refer it to a general meeting. A notice had been sent to every member of the fact that it would be open to discussion on this evening.

Mr. GANE having seconded the resolution, Messrs. ELLWOOD, HALE and RALPH spoke against, and Messrs. BARNARD, JAMES, GANE, STROTHER and JONES in support of it.

The resolution was put to the meeting and carried.

BRIGHTON ASSOCIATION OF PHARMACY.

ON Wednesday, January 10, the Clarence Rooms, Hôtel Métropole, Brighton, were again the scene of a musical and social evening, under the auspices of the Senior and Junior Associations of Pharmacy. Mr. W. H. Gibson (President of the Senior Association) occupied the chair. The President of the Junior Association, Mr. C. G. Yates, filling the vice-chair. The programme was admirably sustained by the following gentlemen:—Messrs. H. E. Hedgcock, W. J. Snow, T. Lynnes, J. Harvey, A. Collins, Clifford, S. Cowley, P. Mock, W. Lander, H. J. Orbell, Fleet, Sanders, Wood, E. G. Whittle, M.D., and Master Wiltshire (child pianist), and Signor Angelici and daughters. Messrs. Norman, Roe and E. Hedgcock were accompanists. It was announced during the evening by the chairman that Mr. G. B. Savage (son of Mr. W. W. Savage, and grandson of Mr. W. B. Savage, J.P.) had passed the Major Examination, thereby connecting three generations of the family with the highest rank of pharmacy. The presentation of the Marshall Leigh testimonial was then made to a representative of Mr. Leigh, who was again unavoidably absent.

PLYMOUTH, DEVONPORT, STONEHOUSE, AND DISTRICT CHEMISTS' ASSOCIATION.

A MEETING of assistants and apprentices of the above Association was held on Thursday, Jan. 11, at the Foresters' Hall, Plymouth, the chair being taken at 8.30 by the President, Mr. J. G. Netting; Vice-President R. F. Rendle, C.C., being also present.

The chief business of the meeting was to elect two delegates to the General Committee. A vote by ballot being taken, Messrs. E. A. Hodge and F. Westcott were declared duly elected. Mr. Hodge was also elected Assistant-secretary.

The apprentices desired to be represented on the committee, and it was resolved to appeal to the members to grant such a concession.

A suggestion that weekly meetings should be held was discussed, and met with general approval.

The quarterly meeting of the Association was held at the Foresters' Hall, Plymouth, on Wednesday afternoon, Mr. J. G. Netting, President, in the chair.

The Secretary, Mr. JAMES COCKS, read a paper entitled—

THE CHEMIST THE LEGITIMATE DISPENSER.

In this paper the author attributed the present bad condition of the retail trade to dispensing being done to a great extent by unqualified individuals, to the chemist becoming patent-medicine agent in the place of the stationer, and to ridiculously low prices. He thought the most hopeful remedy lay in chemists claiming the sole right to dispense, and suggested that local societies should urge that the Pharmacy Acts be so amended that private practices and surgeries should be considered on a par with open shops. He quoted instances of grave errors which had occurred in surgeries through inaccurate dispensing, and concluded by saying that the majority of medical men, rather than go to the expense of keeping a qualified man, would either write prescriptions or come to terms with the neighbouring chemist.

A spirited discussion ensued.

Mr. G. BREEZE said he gathered from doctors that the trouble they felt was that, by chemists doing their dispensing, there were times when patients, instead of again going for advice, went direct to the chemist for another bottle of the same mixture, which would be often supplied, and thus outdo the doctor in his fee. If this difficulty could be overcome with a certainty, there would be no doubt the path would be much cleared.

Mr. C. PARK felt that the greater trouble would probably arise from the struggling practitioner who had trouble to make both ends meet.

Mr. H. R. RENDLE was of opinion the less chemists had to do with the doctors the better. The doctor obtained his full fee: why not the chemist? The doctor was glad to avail himself at night to snit his convenience, perhaps to spread a blister, or make half-a-dozen coated pills, but at other times he didn't give the chemist a chance. The more the doctor was kept out of the shop the better.

Mr. TURNEY felt it ought to be illegal for unqualified persons to dispense prescriptions written by qualified men.

Mr. YOUNG described an arrangement under which, if a prescription was to be charged to the doctor, it was marked X, and if the patient was to pay the chemist the prescription was marked O.

Mr. BAILEY thought the chief source of dissatisfaction was the low price charged for doctors' dispensing. He felt a penny per ounce all round was a fair estimate. He knew a scheme that was successfully worked between a chemist and a doctor. If the doctor wished the chemist to return the prescription to the patient it was signed. If the chemist were to keep it then it was not signed, and if inquiry was made for it he said at once it was not a prescription, but only an order, and had to be retained.

Mr. BARGE considered much mischief was done by doctors doing so much club-practice at low prices, and leaving so small a margin of profit for the medicines. He advocated educating the public to a higher standard.

Mr. KELLY asked: What guarantee have the public as to the accuracy of a doctor's dispensing? If a chemist made an error he was at once dropped on. The doctor could cover his error with a certificate.

Mr. P. KELLY gave notice to move at the next meeting a resolution to define and shorten the hours of business on bank-holidays.

THE CAMBRIDGE PHARMACEUTICAL ASSOCIATION.

THE first annual dinner of this Association was held on January 11, at the University Arms Hotel, Cambridge. Mr. Alderman DECK occupied the chair, and the party numbered between thirty and forty. After dinner, speeches were made in honour of "The Queen and the Royal Family," by the CHAIRMAN; "The Pharmaceutical Society," by Mr. RICHARD STURTON and Mr. A. DECK (local secretary); "The Town and University of Cambridge," by Mr. A. SIDNEY CAMPKIN, J.P., and Messrs. Councillor GREENWOOD and JOATT, M.A.; "The Cambridge Pharmaceutical Association," by Mr. HERBERT COOK and Mr. C. S. ADDISON; and "The Chairman," by Mr. JOSEPH STURTON. Songs were interspersed.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

THE fourth annual dinner was held on Thursday evening, January 11, at the Alexandra Hotel, Liverpool. There was a capital muster of members and friends. The President, Mr. Frank Walker, occupied the chair, and there were present Drs. Logan and Larkin, Mr. Ed. Davies, F.C.S., W. Wellings, R. C. Cowley, R. H. Mitchell, George Brinson, J. Park, J. Newton, J. Jones, S. C. Sproutt, George Lee, J. Shacklady, and others. After dinner a lengthy programme of music was gone through. The toast of "The Medical Profession" was proposed by Mr. T. H. WARDLEWORTH, and, in responding, Dr. LOGAN pleaded for more unity among doctors and chemists, so that they may share somewhat in the prevailing tendency to shorten the hours of labour. He thought an eight-hour day among doctors and chemists might not be a dream, but might become a reality if doctors and chemists could agree to work together in groups and sink their professional and trade jealousies. "The Pharmaceutical Society" was proposed by Mr. R. C. COWLEY, who drew special attention to the claims of the Benevolent Fund, and indicated that at an early date the Students' Society intended to help it in a very practical way. Mr. J. SMITH, one of the local secretaries of the Society, replied, and in the course of his remarks said the Society had shown by its recent action that it was most anxious to maintain the rights of chemists. Mr. ED. DAVIES proposed "The Students' Society," and the PRESIDENT replied. Mr. W. WELLINGS responded for "The Visitors."

The front of the menu and programme contained a reproduction of an original design by Mrs. Wokes, showing the common pursuits of "Ye Pillers of Liverpool." It was a pretty thing of its kind.

ROYAL MICROSCOPICAL SOCIETY.

THE annual meeting of this Society was held on Wednesday evening, when the President, Mr. A. D. MICHAEL, delivered the annual address, taking for his subject the growth and present state of

OUR KNOWLEDGE OF THE ACARI.

The name "acarus" was probably first used by Aristotle; it means uncuttable, but Aristotle did not anticipate Cambridge rocking microtomes, and the president exhibited a set of over 120 serial sections cut from a far smaller acarus than Aristotle could ever have seen. He then described what an acarus really is, and in what respect it differs from other arachnida, a distinction which is erroneously stated in almost all text-books of zoology. The classification of the group practically began with Linnæus; it was shown how difficult it is to identify a Linnæan species, and the progress of classification was shortly traced from the single Linnæan genus to the 212 genera admitted by Trouessart, one of the latest writers on the subject. The President then referred to the fact that many of the predatory acari had not any special organs of vision, and yet that they were most active creatures, and did not seem to suffer in the least from their eyeless condition. The principal families of acari were illustrated by the selection of one or two instances of each, which were specially interesting either from their habits, their anatomy, or otherwise. Finally the descent of the acari was discussed.

MUNICIPAL PHARMACIES IN FRANCE.—This question is comparatively an old one for Paris. As far back as 1884 the Socialist members of the Municipal Council of Paris introduced the subject, but it was indefinitely postponed. Again, on March 11, 1887, Professor Hovelacque brought the matter forward on the ground of "placing pharmaceutical products within the reach of the people at their real value, and to assist those persons who do not wish to present themselves for outdoor relief." The Paris Council voted, however, against the project, and since then the idea has been shelved. M. Aynard, Deputy of the Rhone, states that the City of Lyons spends from 4,000l. to 6,000l. annually on medicaments for its hospitals, &c. Lyons was the first town in the provinces to agitate for a municipal pharmacy.

Bankruptcies and Failures.

Re GEORGE DOBSON, Grangetown, Cardiff, Chemical Manufacturer.

A MEETING of the creditors of this debtor was held at the offices of the Official Receiver in Queen Street, Cardiff, on Monday afternoon. The only creditors present were Mr. H. Clarke, who represented the Taff Vale Railway Company, to whom the debtor owes 141*l.* 3*s.* 7*d.*, and Mr. G. H. Tregassie, who appeared on behalf of the Cardiff Alkali Company. In the absence of the Official Receiver, Mr. J. A. Orr, chief clerk, occupied the chair, and stated that the Official Receiver represented the City Bank, who were creditors for 195*l.* 4*s.* 5*d.*, and the Buckingham Gas Company, to whom was owing 11*l.* He laid before the meeting the debtor's statement of affairs, from which it appeared that the gross liabilities amounted to 5,448*l.* 17*s.* 6*d.* Of this amount 2,173*l.* was due to fully-secured creditors, 938*l.* 18*s.* 11*d.* to partly-secured creditors, 1,006*l.* 3*s.* 9*d.* on bills discounted, and 10*l.* for rates and taxes. The amount expected to rank for dividend is 2,805*l.* 17*s.* 6*d.*, which includes the 1,006*l.* 3*s.* 9*d.* aforesaid, and 478*l.* 18*s.* 11*d.* less estimated value of securities held by creditors partly secured. The assets are estimated to produce 1,506*l.* 10*s.*, and consist almost entirely of shares and debentures. The deficiency is stated at 1,299*l.* 7*s.* 6*d.* The Official Receiver in his observations states that the debtor in January, 1887, filed a petition, under which the receiving order was discharged on payment of a composition of 2*s.* 6*d.* in the pound. The liabilities were 4,339*l.* He ceased trading in March last, having sold the whole of his plant and machinery to a limited company for 5,000*l.*, payable 250*l.* in cash, 2,000*l.* in debentures, and 2,750*l.* full-paid shares in the company. He states this amount was in excess of his liabilities, but he was unable to pay his debts in consequence of his inability to realise the shares and debentures. His assets now consist of 159 fully-paid-up shares in the company, and 17 debentures for 100*l.* each, which he estimates will produce 1,495*l.* He is now acting as manager to this company at a salary of 400*l.* per annum. Mr. Orr stated that the debtor had not submitted any proposal for a composition, and had been adjudicated a bankrupt. The question for the meeting to decide was whether they would appoint an independent trustee or leave the estate in the hands of the Official Receiver. Mr. Clarke thought it useless to incur any unnecessary expense, as it appeared to him that there was very little to come out of the estate, and that the matter had better be left in the hands of the Official Receiver. He understood that the Cardiff Alkali Company were in possession of the premises. Mr. Orr said the agreement had not yet been carried through. When that was done the Official Receiver would be in a position to see how matters stood; but up to the present time the debtor had not handed over the lease of the premises to the company. If he paid the claim of the National Bank of Wales the thing could be completed to-morrow. Mr. Clarke: Then we should get the debentures and shares? Mr. Orr: Yes. No resolution was passed, and the Official Receiver remains trustee of the estate.

Re DENNY & Co. (Limited), Leeds, Drysalts and Chemical Manufacturers of Compounds.

THE Official Receiver's Report under this liquidation shows that the Company was registered on April 7, 1892, and was formed to import and refine oils for all purposes, to compound oils, fats, and greases, &c. Business had commenced on January 1, 1892, in the premises occupied by Denny & Co. in Upper North Street, Leeds. This was a firm which had been in existence for twenty years, and according to the prospectus issued had done a good business, so that a minimum dividend of 15 per cent. was confidently anticipated. There was a partnership dispute, and it was thought best to pay out one partner (Mr. W. Rawling). This was done by promoting a company with 5,000*l.* capital. Mr. T. G. Denny became managing director and secretary at a salary of 200*l.* per annum, which was in June 1893 reduced to 150*l.* per annum. The management of the business was left to him entirely until April 1893, when the report of Mr. William Croiland,

accountant, Leeds, the auditor of the company, upon the accounts for the half-year ending December 31, 1892, caused the directors to investigate matters, and Denny was told that unless he looked better after the business, difficulties would arise as to his position. The profit and loss account for the half-year ending December 31, 1892, showed a loss of 155*l.* 17*s.* 8*d.* for the period. The account for the half-year ending June 30, 1893, showed a further loss of 37*l.* 4*s.* 6*d.* At the annual meeting of shareholders, on November 15, 1893, it was reported that Mr. Denny had absconded, it is said, to South Africa. The statement of affairs shows liabilities as regards creditors 809*l.* 8*s.* 5*d.*, assets nil; as regards contributories, a total deficiency of 1,558*l.* 8*s.* 5*d.* It is not expected that there will be anything for the trade creditors, as a debenture bond covers the whole of the assets.

Re EDWARD MARSDEN (trading as P. & E. Marsden) Sticker Lane, Bradford, Manufacturing Chemist.

The following are creditors in this recent failure:—

	£	s.	d.
Butts, R. G., Hull	91	5	10
Court, Anthony, Halifax	11	11	0
Harris, Thomas S., & Co., London	18	19	8
Hoffman, A., & Co., Bradford	22	14	10
Johnson, Thomas, Shelf, near Halifax	17	16	0
Puty, F. J., & Co., London	27	10	0
Rawstorn, G. & J. (Limited), Hull	133	1	6
Rosse, F. W., & Co., Manchester	60	19	5
Stephenson Brothers, Bradford	19	15	8
Wiban, Aspey, Leeds	129	0	0

Fully Secured.

Hornby, Henry (deceased), Exors. of	1250	0	0
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Partly Secured.

London & Midland Banking Company (Limited), Bradford	193	0	0
(Estimated value of Security, 60 <i>l.</i>)			

DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1867. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act making any of these arrangements binding upon dissenting creditors.

Flight, John William, 60 Bolton Road and Thorpe Street, off Eolton Road, Ramsbottom, chemist and druggist. Trustee, Charles R. Scholes, Stanley Buildings, Bury (C.A.). Dated, January 15; filed, January 17. Unsecured liabilities, 303*l.* 0*s.* 2*d.*; estimated net assets, 40*l.* The following are scheduled as creditors:—

	£	s.	d.
Brooks, J., Manchester	20	0	0
Dietz, Davies & Co., London	11	0	0
Fawell & Sons, G., Bolton	20	0	0
Flight, B. J., Ramsbottom	63	0	0
Gibson & Sons, Manchester	10	0	0
Hanger, Watson & Co., Hull	16	0	0
Kay, William, Bury	50	0	0
Willis & Roberts, Manchester	10	0	0

Granville, Charles Dashwood, Cambridge, medical man and chemist. Trustee, Mary Ann Seymour, Huntingdon (widow). Dated January 9; filed January 12. Unsecured liabilities, 222*l.* 10*s.* 3*d.*; estimated net assets, 65*l.* The following are scheduled as creditors:—

	£	s.	d.
Benge, Mrs. Kate, Cambridge	10	0	0
Lloyd & Co. (sued by Emily Lloyd), London	26	5	6
Newman, G. J., Cambridge	23	0	0
Robinson, E. F., Cambridge	25	0	0
Seymour, Mary Ann, Huntingdon	38	1	1
Smith, Mrs. Matilda, London	33	0	0

Kenderdine, John, Sun Street, Birmingham, and 54 Gough Road, Edgbaston, drysalter. Trustee, Leigh H. Elkington, Newhall Street Birmingham (C.A.). Dated, January 6; filed, January 13. Unsecured liabilities, 423*l.* 5*s.* 10*d.*; estimated net assets, 93*l.* 14*s.* 3*d.* The following are scheduled as creditors:—

	£	s.	d.
Browning, J. & H., London	85	1	11
Church & Son,	71	19	2
Champion & Co.,	24	18	5
Goodier, Wm., Preston	11	18	4
Hutchins, Huntingdon & Co., Liverpool ..	11	4	3
Hanson & Barter, London	17	9	10
Jeffery Bros., Wolverhampton	27	4	11
Lloyds Bank, Birmingham	15	0	9
Ripley, R., Liverpool	10	0	0

Scott, George Thorpe, 60 High Street and West View, Wallsend, aerated-water manufacturer and innkeeper. Trustee, Thomas Gillespie, Newcastle-on-Tyne (C.A.). Dated January 12; filed January 16. Unsecured liabilities, 1,937*l.* 8*s.* 3*d.*; estimated net assets, 541*l.* 8*s.* 5*d.*; creditors fully secured, 1,007*l.* 7*s.* 6*d.* The following are scheduled as creditors:—

	£	s.	d.
Aitchison, Dr., Wallsend	20	0	0
Anderson & Son, Newcastle	29	1	2
Anderson, Thomas, Newcastle	29	8	0
Ayres Quay Bottle Company, Sunderland ..	60	11	8
Barron, Thomas (Limited), Mexborough ..	20	3	2
Buchan, A. W., & Co., Edinburgh	20	11	9
Cummins, W. J., Bishop Auckland	26	0	1
Daglish, D., & Son, Edinburgh	16	9	2
Evans, Jordan, Newcastle	1,000	0	0
Evans, Jordan, Newcastle (Rent)	75	0	0
Gladstone, George, Gateshead	78	0	0
Hodgkin, Barnett & Co., Wallsend	131	10	11
Jeffrey, J. J., Newcastle	615	0	0
Meadlowcroft & Son, Birmingham	22	5	1
Reelfearn Brothers, Barnsley	83	11	5
Roberts, F. W., Bishop Auckland	21	9	8
Turnbull, Robert, Newcastle	20	14	0
Wallsend Co-operative Society (Limited), Wallsend	362	7	6
Warren, George (Exors. of), Newcastle ..	76	5	11
Womphrey, R. R., Wallsend	18	0	7

Gazette.

PARTNERSHIPS DISSOLVED.

Coward, W. H., and Ihlee, F. C., Bath, under the style of Coward & Ihlee, engineers and manufacturers of the Niagara Mill for crushing and pulverising purposes.

Glaisher, T., and Guy, F., Brighton, under the style of Glaisher & Kemp, chemists and druggists.

May, W., and Marrack, E., Duke Street, Aldgate, E.C., under the style of May, Marrack & Co, drug, spice, and general merchants, and drysalter.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDER.

Corbett, Thomas James (trading as Thomas Corbett & Son), Handsworth and Birmingham, mathematical and scientific instrument manufacturer.

ADJUDICATIONS.

Inglis, Hubert Charles (otherwise known as Chambers, Thomas), Anecoats, Manchester, drysalter.

Sansom, Herbert Henry, West Bridgford, Nottinghamshire, late Nottingham brush manufacturer's manager, late brush manufacturer.

PASTEURISM IN INDIA.—It is proposed to establish a Pasteur Institute in India for (1) treatment (*gratis* if necessary) for every person in India bitten by a rabid animal; (2) scientific investigation into the means of prevention of diseases prevalent in India, such as fever, dysentery, cholera, leprosy, &c.; (3) instruction of selected native students in bacteriological study and practice. The proposal appears to have originated in Lahore, and subscriptions are sought to build and endow the Institute.

BALLS.

THIS has been a week of them. Brighton, London and Manchester on Wednesday, and Birmingham, as we go to press, have given their pharmacists a "night out." Grave and gay amongst the disciples of Asculapius have for the nonce worshipped at another shrine, and the accounts which we have received from our dancing deputies clearly reveal that the mystic charms of the ladies were still influential on Thursday morning.

LONDON.

The 27th ball was held in the Portman Rooms, Baker Street. Two hundred were there—every one an enthusiast, or, as one of our deputies puts it, "thoroughly imbued with the spirit of the dance." Towards midnight supper was served, Mr. Carteighe presiding. Four B's supported him—Messrs. Burroughs, Butt, Bremridge and Barclay.

In his speech Mr. Carteighe referred to the great value of the services rendered by the late Hon. Secretary of the ball, Mr. Thomas, and by his successor the present Hon. Secretary, Mr. A. J. Phillips. He also referred in graceful terms to Mr. T. C. Martin, the ever-popular M.C.

Many of those present spoke of the beauty of the ladies—not to be excelled anywhere—also of their tasteful toilets and graceful dancing.

But that was in the quiet corners. So the dance went on till 4 A.M., enjoyable in every detail.

BRIGHTON.

The Brighton Chemists' Association also held their annual ball on Wednesday evening last, in the Clarence Rooms of the Hôtel Métropole, Brighton. About 120 of the chemist's craft and their fair friends were present, and the gathering was most successful. An excellent supper was served, at which Mr. W. H. Gibson, F.C.S., presided.

MANCHESTER.

The first annual ball of the Manchester Association is not likely to be the last. Held in the Hulme Town Hall, it was attended by some 220 pharmacists and their lady friends. Manchester and Salford furnished the bulk of the gathering, but there were not a few visitors from other towns, including places so far afield as Sunderland and Sheffield. The President of the Manchester Association, Mr. G. S. Woolley, was in the entrance-hall from 8 to 9 receiving the guests. At 9 dancing was begun, and, with occasional intervals for refreshments and songs, it was kept up merrily till half-past 2 in the morning.

Mr. T. Bage Blyton made an efficient master of ceremonies. On all hands the affair was voted a huge success.

A DENTIST'S HEIRS.—Of recent years one of the most successful dentists in Paris was a Dr. David, who is said to have made 4,000*l.* a year by his profession. He sought Parliamentary honours, and was elected a Deputy for the Alpes Maritimes, but rapid phthisis carried him off eighteen months ago, when he was scarcely 40 years of age. Some seventeen persons were around his deathbed, and when Mme. David came to look for her husband's keys she found that his particular friend a M. Trouillot, Deputy, had taken possession of everything. This gentleman produced a will from his pocket dated March 1, 1892, which cancelled all former ones, and by it Dr. David entirely dispossessed his wife. This will terminated with insulting expressions for that lady, and asked the executors to have her put into a madhouse. But Mme. David is also the widow of a barrister, with a taste for law, and has succeeded in getting possession of 270,000*l.* (10,800*l.*) left to her son and payable on his majority. The child is not yet two years old, and the ingenious plea which carried the case for the mother was that the executors are not sufficiently reliable persons. Not satisfied with this success, Mme. David has returned to the charge, and now has an action pending against M. Trouillot, on the ground that she has scarcely inherited anything from her husband.

THE INSTITUTE OF CHEMISTRY EXAMINATION.

A CANDIDATE at the first examination for associateship which the Institute of Chemistry has held in its new laboratory, sends us the following brief account of his experiences:—

The examiners appointed on this occasion were Professor Dunstan, F.R.S., F.I.C., and Mr. Thomas Fairley, F.I.C., public analyst for Leeds. The examination was held on Monday, December 8, and three following days from 10 A.M. to 4.30 P.M. each day. A lunch for each candidate was brought into the laboratory about 1 o'clock. Upon entering the laboratory on the first day the candidate found the following paper of questions on his allotted bench:—

(1) Calibrate the gas-burette supplied to you.

(2) Make a quantitative analysis of the mixture of gases contained in the iron cylinder.

The gas-burette supplied was the pattern known as Bunte's, and the mixture of gases proved to be nitrogen containing about 10 per cent. of oxygen.

For the second day's work we were expected to

(1) Identify the given organic compound, purify it, and ascertain the boiling-point of the pure compound.

(2) Prepare a specimen of crystallised benzoic acid from the above-mentioned pure substance, determine the melting-point of the acid, and leave the specimen in a watch-glass for the examiners' inspection.

About an ounce of the organic compound was supplied to each candidate, and it proved to be benzaldehyde.

The third day, Wednesday, we were required to

(1) Ascertain what elements (metallic and non-metallic) were present in a given powdered mineral.

(2) Estimate gravimetrically or volumetrically the amount of the two chief constituents.

Qualitative analysis proved the mineral to be a sample of zinc blende, a native sulphide of zinc. In addition to the two chief constituents zinc and sulphur, it contained a number of other elements such as iron, copper, silica, &c., some as traces only.

The last day, Thursday, the work was purely qualitative analysis, namely:—

(1) Ascertain the constituents of the given powdered substance.

(2) Ascertain the constituent of the solution labelled "A."

(3) Ascertain the constituent of the solution labelled "B."

About an ounce of each substance was supplied to operate upon.

Candidates were required to enter in a note-book a concise record of all experiments made, and to briefly explain the methods employed. A new note-book was supplied each day.

The arrangement and fittings of the new laboratory were all that could be desired; each candidate was supplied with all apparatus and reagents he was likely to require, and was allowed to use his own apparatus and books of reference, if he liked to bring them with him.

A candidate needs to keep all his wits about him in order to get through each day's work, and write up his note-book in the allotted time; and, as the percentage of passes shows, the examination is now a very different affair to what it was a few years ago, when it was the practice to announce a day beforehand exactly what substances would be given out and what was required to be done.

UNNATURAL HISTORY.—Teacher: "What are marsupials?"

Boy: "Animals which have pouches in their stomachs."

Teacher: "And what do they have pouches for?" Boy: "To crawl into and conceal themselves in when they are pursued."

THE USE OF LIQUID SALOL.—Dr. Reyneer, of Paris, has obtained excellent results in the treatment of fistula or wounds by the use of liquid salol, alone or with iodoform. His theory is that the salol crystallises, and gradual absorption follows. He finds that tuberculous and suppurated glands can be successfully treated in this way. Iodoform with liquid salol gives good results in dressing wounds, as by the solidification over the injured part an antiseptic dressings is formed almost equal in consistency to varnish.

Practical Notes and Formulae.

HAIR-CURLERS.

(1)

Potassæ carb. ..	..	..	..	..	5lj.
Liquor ammoniac ..	..	..	..	..	5j.
Spt. vin. rect. ..	..	..	..	..	5iss.
Aquæ rosæ ad ..	..	..	..	..	5xviij.

Moisten the hair; adjust loosely. It curls upon drying.

(2)

Borax ..	..	..	..	..	5lj.
Gum acacia ..	..	..	..	..	5j.
Hot water ..	..	..	..	..	5xxxij.

When cool, add 12 fluid drachms of spirit of camphor. Wet the hair with above and roll on papers as usual. Let dry, and unroll and form into ringlets.—*Meyer Brothers' Druggist.*

BRILLIANTINE.

THE following formulæ have been devised by Dieterich:—

(1)

Castor oil ..	..	..	..	..	5v.
Soap ..	..	..	..	..	5ss.
Tincture of benzoin (1 in 5) ..	..	..	..	..	5iiss.
S.V.R. ..	..	..	..	..	5viij.
Oil of bergamot ..	..	..	..	..	5vj.
Otto of rose ..	..	..	..	..	5vj.

Mix.

(2)

Castor oil ..	..	..	..	..	5iss.
Glycerine ..	..	..	..	..	5iss.
Tincture of benzoin ..	..	..	..	..	5iss.
Soap ..	..	..	..	..	gr. xvij.
S.V.R. ..	..	..	..	..	5iv.
French extract ..	..	..	..	..	5j.
Acetic ether ..	..	..	..	..	5ij.

Mix.

A VARNISH OR POLISH FOR LEATHER.

C. H. HOLLIS and A. W. Byron, Chesterfield, have patented the following combination (Eng. Pat. 7,721, April 15, 1893):—

	Oz.
Shellac ..	14
Camphor ..	1
Resin ..	2
Spirit ..	20

It requires a considerable amount of ingenuity to convert these ingredients into a satisfactory liquid.

LANO-VASELINE OINTMENT-BASE.

A MEMBER of the Austrian Pharmaceutical Society suggests a mixture of vaseline 3 parts and anhydrous lanoline 1 part. He considers this equal to lanoline alone, and cheaper.

PRECIPITATES IN MIXTURES.

It is almost an accepted rule that the addition of extract of liquorice to a mixture containing ammonium chloride is followed by a thick precipitation. Mr. J. E. Morrison writes on the subject to the *Montreal Pharmaceutical Journal*, noting some experiments which he made with the following prescription:—

Ammon. mur. ..	..	..	..	..	5iv.
Acet. scillæ ..	..	..	..	..	5lj.
Ext. glycyrrhizæ liq. ..	..	..	..	..	5iv.
Syr. acacie ..	..	..	..	..	5j.
Aquæ ad ..	..	..	..	..	5iv.

M.

His results may be summed up in a sentence: "If the extracts of different manufacturers are used in the same prescription at different times the results are never the same, as with one make of extract a clear mixture may be produced, and another make of the same extract will produce a cloudy preparation." This remark applies to many other extracts besides liquorice, and it is a thing which dispensers should constantly bear in mind.

REVIEWS

Anatomischer Atlas der Pharmakognosie und Nahrungsmittelkunde. Von Dr. A. TSCHIRCH (Professor der Pharmakognosie, Direktor des Pharmazeutische. Institut der Universität, Bern). und Dr. O. OESTERLE (Assistant am Pharm. Inst. der Universität, Bern). Leipzig: T. O. Weigel Nachfolger. London: Williams & Norgate, 1s. 6d. per part. To be completed in 16 to 20 parts.

IT is scarcely four years since Professor Tschirch issued his first volume of "Plant Anatomy," and he then promised a second volume very shortly dealing with "Special Anatomy." The issue of this was retarded through a visit he paid, in the interests of his profession, to some of the sources of our drug-supplies in foreign countries, and also in some measure through his appointment, on his return as Professor of Pharmacognosy in the University of Bern. He returned from his tour round the world rich in botanical and materia medica specimens gathered in their own "habitats." These accumulated riches required special drawings, without which the points he was desirous of making clear would not be sufficiently intelligible to his readers. These circumstances have induced Professor Tschirch to change his views with regard to the second volume of his great work, and, assisted by Dr. Oesterle, who undertook the necessary drawings, he determined to bring it out as an atlas. Hence its present form.

Two admirable atlases on pharmacognosy have made their appearance within the last few years, and it might be thought that the subject being limited had been well-nigh exhausted. But no student of pharmacognosy will consider that in the well-known and well-appreciated atlas of Vogl, and the only little less valuable one of Müller, there is one plate that could be omitted without injury to those valuable collections. Some of the subjects illustrated in all these atlases must be repeated, but in many instances the same specimens are seen from different points of view. It is difficult to say that the student of pharmacognosy can afford to omit one of these atlases from his library, but it is certain that, if one, that one should not be Tschirch's.

In the atlas of Tschirch now before us, we have reason to believe that fresh ground has been broken, and that new and interesting matter gathered from his "all-round-the world trip" will be incorporated, and we may reasonably anticipate that the cornucopia will pour out its riches in the succeeding parts of this work. The author states that the atlas is specially intended for the pharmacist, but it will be scarcely less useful to the analyst of food, seeing that articles of diet will be included among the illustrations which accompany the descriptive text. The microscopist will be materially assisted in establishing the identity of the several parts seen under different circumstances by the clear and accurate drawings. It is important to note, too, that the author has paid particular attention to drugs in a state of powder, and to facilitate the acquiring of a discriminating knowledge of powdered drugs as they are usually found in the pharmacy, hints are given of some value to the student.

To convey some idea of the comprehensiveness of this atlas, it may be stated that in Part I, the only one at present issued, there are five plates, with an average of twenty drawings on each plate, and text to correspond. The subjects dealt with in this part are angelica-root, chamomile-flowers, tea, capsi-cums, and mustard-seeds. The exquisite delineation of the cells and tissues leave nothing to be desired.

Guide Pratique pour la Determination des Poudres Officinales
Par M. EUG. COLLIN. Paris: Octave Doin. 8 Place de l'Odéon, Paris. 4 francs.

THERE is not, perhaps, now the same recognised licence in regard to powdered drugs as there was in the days when it was usual to buy the powder at a lower price than the root, bark, or leaf from which it was produced, but this side of the millennium it will perhaps be always desirable that the

pharmacist should be in a position to check his wholesale provider. For this reason, among others, the use of the microscope has come to be reckoned as a necessary part of the competent pharmacist's equipment. To the pharmaceutical microscopist this book will be found of much service. M. Collin treats officinal powders in eight chapters—namely, leaves, flowers, fruits and seeds, barks, roots, woods, fungi—and lastly a little chapter devoted to squills and nutgalls, which do not fall into any of the previous categories. Each chapter is prefaced by some intelligent general remarks on the characteristics of the powder comprised in the section under review, and the microscopic appearance of each particular powder is illustrated and described. The total number of drugs thus figured and treated is 92.

The former isolated efforts of M. Collin in this direction are familiar to those who keep abreast of the literature of the subject both in home and foreign journals. No pains have apparently been spared to make this work thoroughly practical and eminently reliable. The author's position in the School of Pharmacy in Paris must have given him exceptional opportunities of making himself fully conversant with all that pertains to this subject.

In the course of the work many useful matters are dealt with. For instance, the chapter on the character of leaves, contains a very practical description of the upper and lower epiderm, the stomata, together with hairs, glandular or otherwise, cell crystals, and so forth. The chapter on flowers treats of them in a powdered form, and illustrates such adulterations as *Calendula officinalis*, the well-known adulterant of saffron, and *Carthamus tinctorius*. Here the pollen-grains, accurately rendered on the plate, become of importance, their presence indicating admixture or adulteration.

We notice that in one or two instances M. Collin explains the method he adopts for rendering the materials to be examined under the microscope more transparent. It would have been useful if he had added a few lines on this part of the subject to every plate. It is curious that the chloralhydrate solution, so valuable especially in rendering leaves transparent, is not even once alluded to.

The illustrations are perhaps a little sketchy and wanting in detail in some instances. It is difficult to present microscopical drawings perfectly on wood blocks, but there is a want for a work of this kind, as there has been little of importance published with illustrations except the large atlases which are more adapted for the expert than for the student.

A Manual of Telephony. By W. H. PREECE, F.R.S., Engineer-in-Chief and Electrician, G.P.O., and A. J. STUBBS, Technical Officer, G.P.O. London: Whittaker & Co. 15s.

WE have in this manual as complete a guide to the theoretical and practical study of telephony as it is possible to give short of actual experience in the manufacture and manipulation of the apparatus. Since Professor Graham Bell constructed his first instrument in 1876, the inventions and patents for the development of the telephone have been bewildering in number, and wonderfully ingenious in character. Alongside of these, physicists in all parts of the world have studied closely the theory of the telephone, and are, perhaps, now more at variance than ever as to the exact manner in which sounds are reproduced by its agency. No doubt the disturbance of the magnetic fields surrounding each magnet is the primary and principal cause of the transmission of sounds with such perfection as is now attained. But the development of the science has convinced many of the ablest observers that at least to some extent the effect is due to a molecular disturbance in the bar of the magnet subsequently conveyed to the diaphragm. The action of the microphone is still less understood, and the scientific problems involved are no doubt of the keenest interest. Messrs. Preece & Stubbs's work does not deal very largely with theory. It is a clear practical exposition, freely illustrated, of the principal and subsidiary inventions, by which the telephone system has been brought so rapidly to its present position. Mr. Preece, in conjunction with Dr. Maier, wrote a somewhat similar treatise in 1888, but the rapid strides made since that date have made it advisable to prepare this volume as an entirely new work. It certainly covers the field most efficiently.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

43 CANNON STREET, E.C., January 18.

A Menthol Dispute.

A commercial dispute, commonplace enough in its general features, but of which the settlement raises a rather unusual question, has recently occurred in Mining Lane. It may be summarised as follows:—About three months ago a dealer (A), purchased from B, a Japan merchant, through a firm of brokers (C), 600 lbs. of menthol, to be shipped from Japan in October, at the then current rate of 10s. 6d. per lb. Menthol was rising rapidly at the time, and very little was being exported from Japan. At the beginning of December the brokers informed the dealer that their principal would be unable to deliver the goods contracted for, but offered to supply instead the same quantity, to be shipped partly in November and partly in December. The dealer, who had meanwhile disposed of the goods on the same delivery-terms upon which he had purchased, communicated this proposal to his buyers, who refused to alter the bargain. Default was declared, and arbitrators were appointed in the usual way, on behalf of B on the one side and of A's buyer on the other, to decide what allowance should be made by B. for his failure to keep to the contract. On the day of the default, December 11, the market-price of menthol was 17s. 6d., but the last actual business traceable was (it would seem) a transaction at 15s. per lb. about the middle of November. The arbitrators' award was that B should pay to A's buyer the difference of 4s. 6d. per lb. as compensation. The buyer refused to abide by this decision and appealed to the Produce Brokers' Association, the final court of appeal in such matters. Meanwhile the price of menthol had risen to about 19s. per lb. Before the hearing of the appeal, the broker C communicates with A and suggests that the matter may be settled by A's buyer taking delivery of 600 lbs. of menthol that have meanwhile arrived, and paying therefore 11s. 6d. instead of 10s. 6d. at which he has originally purchased. A's buyer, who is thereby enabled to pocket the difference between 11s. 6d. and the current price of 19s. per lb. instead of that between his purchase-figure of 10s. 6d. and the arbitrators' award of 15s. per lb., naturally accepts, and the incident is closed.

The point raised by some wholesale firms who have heard of the matter is that such arrangements are calculated to injure business by putting a premium upon default of delivery. In this case, they say, the Japan merchant, had he fulfilled his contract, would have received only 10s. 6d. per lb. for his menthol whereas now, by defaulting, he gets paid 11s. 6d. per lb.—a net gain to him of 30%. To which the reply may, of course, be made that, whatever the abstract principle involved, the arrangement is certainly a most ingenious one, and has the merit of settling out of hand a dispute which might have caused weeks of friction, great expense, and much worry.

The Sicilian Essential Oil Trade.

The following circular letter has just been issued by the United States Consul at Messina, Sicily, and is causing no little commotion among the parties interested, especially as it is understood that the Consul is preparing for publication a list of firms importing turpentine:—

GENTLEMEN,—I am now preparing a report to the Department of State on "Essential Oils," and, in order that it may

not be lacking in accuracy, whereby injustice might be unintentionally wrought, I prefer to have your co-operation, to which end I will be thankful if you will furnish me with replies to the following questions:—

1st. Are there manufactured in and exported from Messina any absolutely pure essential oils of lemon, orange, bergamot, mandarin, or bitter orange?

2nd. What is the lowest price (in gold) at which absolutely pure essential oils (state the kinds) can be exported to the United States?

3rd. To what countries are the best grades of essential oils exported? If the grades exported to the United States are inferior to those exported to other countries, please state the cause.

4th. In the adulteration of essential oils, what are the adulterants?

5th. If you have any brands which you will guarantee as being free from any adulteration whatsoever, will you please specify them (giving name of oil), and state if these brands are exported to the United States, and, if not, to which countries they are exported?

6th. Will you please furnish me with a list of all your brands?

In propounding the above questions, I trust they will be accepted in the spirit that is intended. I have no desire to pry into the "secrets of the workshop," but am only too anxious to mete out an even measure of justice to you and to my countrymen, and I deem this method as the most expedient towards the accomplishment of that end.

Thanking you for a reply at your earliest convenience,

I am, your obedient servant,

(Signed) CHAS. M. CAUGHY.

ACETANILID.—Lower. Twenty-eight lb.-parcels are now offering at 1s. 4d. per lb.

ACID (CHRYSOPHANIC) has been reduced to 8s. 3d. per lb. by some of the makers.

ACID (CITRIC).—Very steady at 1s. 5d. per lb. At auction to-day 5 hogsheads West Indian lime-juice, analysing 102.05 oz. of commercial crystallised citric-acid per gallon, sold at 14l. 10s. per 108 gallons.

ACID (TARTARIC).—Very firm indeed; one of the English makers has slightly raised his price, and both now quote 11d. per lb., while German crystals may still be had at 10½d. per lb.

ALOE.—A parcel of 45 cases *Cape aloes* sold to-day at the reduced price established at the last auctions—viz., fine bright hard, 22s. 6d.; fair to good, 21s. 6d. to 22s.; partly burnt or soft, 19s. to 21s. per cwt. *Curaçao aloes* is slow of sale, everything offered to-day being bought in, good bright liver at 50s. to 55s. per cwt. *East Indian aloes* rather easier, 25 casks Socotrines from Bombay realised 87s. 6d. per cwt. for good dry hard, in kegs; 70s. to 77s. 6d. for fair, and 55s. (subject to approval) for barely fair quality.

ANISE is firmly held and sells well. Common dull and stony to good bright *Russian* is worth from 24s. to 28s. per cwt.

ANNATTO appears to be very scarce in good quality, and bright seed sold at an advance of about 40 per cent. at to-day's auctions, three packages good Madras seed out of a parcel of 22 realising 6d. per lb.

ANTIMONY.—*Crude Japanese* was slow of sale to-day. For one rather dull parcel 19l. 15s. per ton was refused. The current price for good quality is about 21l. 10s.

ARECA-NUTS.—The market is considerably over-supplied, and although the holders of most of the lots shown to-day bought in their supplies at 20s. per cwt. nominally, one firm sold 20 bags "without reserve" at a heavy decline, 1 parcel realising only 8s. 6d. to 8s. 9d. per cwt.

ASAFOETIDA.—A newly-arrived parcel of 20 cases from the Persian Gulf was offered to-day; 13 of these sold at a decline of from 5s. to 10s. per cwt.—namely, medium to bold clean almond softish grey block, at 90s., and rather dull grey partly loose and sandy block, at 67s. 6d. per cwt.; for softish grey and pinky block partly sandy 80s. was refused, the owner demanding 85s. per cwt.

BALSAM COPAIBA.—The 59-tin parcel (each tin weighing about 38 lbs.) which was lately imported from Cartagena *via* Rotterdam, and has been offered before, was again bought in, the limit of 1s. 7½d. per lb. being too high at present. The appearance varies from thin pale-yellow, slightly cloudy, to rather thick brown. For another lot of four casks good *Maranham* 1s. 10d. per lb. is asked.

BALSAM TOLU.—Four cases were bought in to-day at 1s. 2d. per lb. It is reported to be selling privately at 1s. per lb.

BENZOIN.—Of *Sumatra* gum a little over 100 cases were offered to-day. There was a very strong demand, with lively competition for better grades, which are exceedingly scarce. A parcel of 48 cases seconds, fine white almondy centres, of good flavour, very slightly false-packed, sold rapidly at 8l. 15s., one lot bringing 8l. 17s. 6d., and another 8l. 12s. 6d.; this marks an advance of 20 per cent. Ten cases fair almondy centres, false-packed top and bottom, sold without reserve at 6l. to 6l. 2s. 6d., which is also a good price; and 2 cases rather duller brought 5l. 12s. 6d. per cwt. Of *Siam* gum only 8 cases were offered, and these remained unsold, although 50s. was bid for small clean medium almondy block. Eighteen cases *Penang* gum also remained unsold, the holders buying them in at from 82s. 6d. to 90s. per cwt. For fine *Palembang* gum 60s. is asked.

BORAX.—The combination prices remain 30s. for crystals and 31s. for powder, but second-hand holders are selling English at 28s., and powder at 28s. 6d. per cwt. *Boracic acid* also unaltered, at 39s. for powder and 37s. for crystals, London terms.

BUCHU is still in heavy supply. Round yellowish leaves were bought in at 4½d. per lb. to-day, while for good bright green round leaves 5d. per lb. is the price. For long fair greenish spears 9d. to 9½d. per lb. is asked.

CALUMBA.—No demand whatever, and exceedingly dull of sale. The market is very liberally supplied, and at to-day's auctions nearly 500 bags had to be bought in; for good yellow small to bold root 25s. is asked; and for a newly-imported parcel of fair sorts from Bombay an offer of 16s. was refused.

CAMPHOR.—At auction 45 cases fair dry pinky *China* camphor were bought in at 110s. per cwt.; this appears to be about the nearest price at which the article can be purchased on the spot. The figure asked for *Japan* camphor varies according to the holder from 145s. to 150s.; for shipment, however, the quotations are relatively lower, *Japan*: January-March offering at 120s. c.i.f., and *China* in the same position at 97s. 6d. c.i.f., although it is probable that a little less would be accepted for the last named. There has been a sale of 200 piculs *China* camphor for January-February shipment, at 95s. per cwt., which shows a fresh decline of 2s. 6d. per cwt.

CAMPHOR (CRUDE).—Another parcel of 29 cases *China* camphor, rather damp, was bought in at 120s. per cwt., at auction. A bid of 102s. 6d. per cwt. for it was rejected.

CANTHARIDES.—Good *Chinese* flies of new import are held at 1s. per lb.

CARAWAY-SEED.—The demand is slack, but prices are fairly well maintained. For *Russian* seed the quotations run from 24s. to 25s., and for *Dutch* from 29s. to 32s. per cwt.

CARDAMOMS.—In fairly good supply. Of 229 boxes offered nearly 200 sold at steady but slightly easier rates for ordinary grades, while the finer qualities were strongly competed for and brought an advance in most instances. *Ceylon-Mysore*: fine bold pale are held for 3s. 3d. per lb., and it is said that sales have been made privately a penny below that figure; medium to bold light pale realised 2s. 6d. to 2s. 7d.; medium size, 2s. 1d. to 2s. 3d., and small, 1s. 9d.; good pale partly weevily, 3s. 2d.; smaller but sound, 3s. 1d.; medium, from 2s. 6d. to 2s. 10d.; medium plump yellow, 2s. 4d.; smaller sizes, 2s. 1d.; small long pale, 1s. 10d. to 1s. 11d.; medium and small yellow mixed, partly specky, 1s. 6d. to 1s. 8d.; small long yellow and brown, 1s. 6d. to 1s. 9d.; dark mixed ordinary specky and skinny, from 1s. 5d. down to 1s. per lb. *Ceylon-Malabar*: medium plump round brownish, 2s. to 2s. 1d.; smaller and darker, 1s. 7d. to 1s. 8d.; small sizes, 1s. 5d. to 1s. 6d. per lb.; bold *Wild Ceylon* cardamoms realised the

high price of 2s. 5d., and small size 1s. per lb.—this variety is very scarce. *Seed* was 1d. dearer, selling at 1s. 7d. per lb.

CASCARA SAGRADA.—There is not much doing on the spot; 35s. is asked for good quality.

CASCARILLA.—A parcel of 45 packages small grey bark has just arrived from New York, but was not offered to-day. The drug is rather scarce, and three bales small to medium brownish quill offered to-day "without reserve" realised from 31s. to 32s. per cwt.

CASSIA FISTULA remains very dear; 25 baskets fair fresh but lean East Indian sold rapidly at from 29s. to 31s. per cwt.

CASTORUM.—Two parcels were offered at auction to-day. A 14-lb. lot of fair thirds is held for 115s. per cwt., and for 11 lb. of very dry small shrivelled pods, imported about twenty-five years ago and apparently discovered accidentally the other day, 80s. per lb. is asked. Part of the parcel is said to have been sold privately at that figure.

CHIRETTA.—A four-bale parcel, of fair quality, was bought in to-day at 6d. per lb. There was no bid at 5d. Other lots were also bought in at figures ranging from 5½d. to 7d. per lb.

CINCHONA.—Next Tuesday's London cinchona auctions will be very small in extent, only 1,100 bales *Ceylon*, *East Indian*, and *Java*, and 85 bales *African* bark having been declared. At to-day's auctions very little South American bark was offered. Sixteen bales bold, flat orange *Calisaya* bark, imported *via* Hamburg, are held at the rate of 1s. 8d. per lb. for sound quality; and two bales short stout mossy *Guayaquil* were withdrawn. The exports of cinchona from *Guayaquil* (Ecuador) in 1892 were 21,823 kilos., valued at 7,290 sucres. From *Tacna-Arica* (Peru) they were, in the same year, 12,978 kilos., valued at 22,905 pesos.

CIVET still remains very scarce. At auction to-day only 2 horns (land carriage) were offered, and these were bought in at 15s. per oz. It is said that sales are being made privately at 13s. 6d. per oz. Another horn was offered to-day, for which 12s. 6d. per oz. would have been accepted by the owners. This seems to point to a rather easier tendency in the article.

COCA LEAVES.—A parcel of 13 bales recently imported from *Pacasmayo* (Peru), and showing a good green, rather thin and broken leaf, of *Truxillo* character, but deeper in colour, was bought in at 1s. per lb.; only 7½d. per lb. was bid for it. Tenpence is wanted. One bale not quite so good sold at 9d. per lb. Another lot of 21 bales small green, but broken, *Truxillo* leaves could not find a buyer.

COLOCYNTH.—A newly-imported parcel of 3 cases dark small shrivelled *Spanish* colocynth sold cheaply to-day at 4d. per lb. for sound and 2½d. per lb. for damaged apple. *Turkey* colocynth sold cheaply, 15 casks pale fair seedy apple bringing from 9d. to 9½d. per lb. Another holder asks 1s. 2d. per lb. for good quality.

CUBEBS.—There was a pretty heavy supply to-day, and the market is tending distinctly lower, although no actual sales were made at auction. For fair sifted, slightly stalky, brown berries (out of a parcel of 70 bags) 45s. per cwt. was offered, but the broker would not sell below 57s. 6d. per cwt. Other lots, aggregating about 70 bags, were bought in at figures ranging from 52s. to 70s. per cwt.; 50s. per cwt. would be taken for fair brown berries, slightly stalky, from *Singapore*.

CUTTLE-FISH.—A parcel of 23 barrels fair small to medium pale bone from *Bombay* sold at 2½d. per lb. to-day.

DRAGON'S BLOOD.—Very firmly held. Of 10 cases *East Indian* six sold at 9l. for bold seedy lump of fair colour, and at 7l. 5s. for ordinary seedy broken lump rather dull; fair saucers of a good colour were bought in at 10l. 10s. per cwt. 3 bags dull *Zanzibar* drop were bought in at 60s. per cwt.

ERGOT OF RYE.—*Spanish* ergot is in large supply, about 53 bags being offered to-day, of which only one sold at 1s. 1d. per lb. for good quality. This is rather a good figure, as 12½d. has lately been accepted. 16 bags dull mixed *German* were bought in.

EUPHORBIA PILULIFERA.—A parcel of 10 bags from Bombay is held for 10*d.* per lb.; the highest bid obtained was 6*d.*

GALBANUM.—A small parcel of dark cakey and partly woody gum sold without reserve at 6*d.* per lb.; ordinary to good quality was bought in at from 1*s.* 2*d.* to 2*s.* 9*d.* per lb.

GAMBOGE sold well to-day, especially for good quality; a new parcel of 30 boxes was all disposed of at 12*l.* to 12*l.* 5*s.* for rather pale but bright loose pipe of good fracture and appearance; 11*l.* for medium partly small ditto of fair fracture; and 10*l.* 10*s.* for good pickings; cakey pipe rather dull and partly ricey brought from 9*l.* 15*s.* to 9*l.* 17*s.* 6*d.*

GINGER.—*Cochin* ginger is again 10*s.* per cwt. cheaper. At auction nearly 1,000 bags sold "without reserve" at 23*s.* to 33*s.* per cwt. for fair to good bright washed rough.

GOLDEN SEAL ROOT is reported higher from New York, the price of 1*s.* per lb., c.i.f. terms, being now quoted.

GUM ACACIA.—Soudan sorts are in fair supply; for one parcel an offer of 40*s.* was refused, and the bulk was bought in at 50*s.* Small palish drop Trieste picked is held for 13*l.*; a parcel of 11 cases also Trieste gum sold at 70*s.* to 72*s.* 6*d.* for medium to bold greyish drop; 58*s.* for small dull greyish grain; and 32*s.* for small siftings.

GUM ACCROIDES.—A parcel of 35 bags fair block imported from Sydney is held for 30*s.* per cwt. There is now very little demand for this article.

GUM EUPHORBIIUM.—Slow of sale, 9 serons very dusty dull and woody gum were priced at 35*s.* per cwt.

GUM KINO.—One case of an astringent gum, probably some kind of Kino, of sweetish taste was bought in at a nominal price; there was no bid at 5*l.*, although genuine kino is still worth 20*l.* or 21*l.* per cwt.

HONEY.—Of the Jamaica variety very little was offered to-day, 2 cases rather ordinary greyish brown thick sold at 25*s.* per cwt; for 30 cases half-candied orange to grey Californian 36*s.* is asked.

IPECACUANHA.—The supply of *Brazilian* ipecacuanha consisted of 71 bales, of which 16 sold with some difficulty at a decline of about 2*d.* on the last rates; good to fine native picked, 6*s.* 5*d.* to 6*s.* 9*d.*; medium to ordinary wiry root, from 5*s.* 9*d.* down to 5*s.* 4*d.*; and rather ordinary first-class damaged, from 5*s.* 9*d.* down to 5*s.* 6*d.* per lb. *Colombian* root, of which 51 bags were offered, was fairly steady, and some sales were made at the rate of 3*s.* 8*d.* to 3*s.* 11*d.* per lb. for damaged to fair plump root; fine quality was bought in at 5*s.* 3*d.* per lb.

JABORANDI.—A parcel of 25 bales has just arrived in Liverpool from Maranham.

KOLA.—Firmly held at 1*s.* to 1*s.* 2*d.* per lb. for good bright *West Indian*. Only one bag from Grenada sold to-day at 1*s.* per lb.

KOUSSO.—For a 3-bale lot of dull loose flowers from Alexandria 10*d.* per lb. was mentioned as the price. Another lot of good quality, in bundles, was also bought in at 3*s.*; and it is said that privately a figure quite near to that price has been obtained.

LITHIA.—*Carbonate* is again cheaper, and can be had at 5*s.* 6*d.* per lb.

MENTHOL remains quite firm in price. Three cises were offered to-day, and appear to have been all bought in. In one instance 19*s.* per pound was offered, but 20*s.* per pound seems to be the general price.

MERCURIALS.—On Friday last the English manufacturers of mercurials reduced their prices by 1*d.* per lb. all round. The quotations are now as follows:—

	56 lbs. or less.	56 lbs. to 2 cwt.	Over 2 cwt.
Calomel .. per lb.	2 7	2 6	2 5
Corrosive sub. ..	2 3	2 2	2 1
Red precip. ..	2 10	2 9	2 8
White do. ..	2 10	2 9	2 8
Persulphate ..	2 -	1 11	1 10
Sulph-black ..	1 11	1 10	1 9
Mercury with chalk ..	1 -	1 -	1 -

MUSK.—In considerable supply and very dull of sale. Of first pile *Tonguin* pods 20 tins were offered, only 3 of which

sold at 41*s.* for small to bold old dry pods hard and very skinny; for a tin of small to bold pods thin brown skin and under skin very damp a bid of 51*s.* was refused; of third pile pods 21 caddies were shown of which 4 sold at 40*s.* for good small to bold thin skin pods rather damp, and 16*s.* for old fashioned very dark and skinny pods; a tin of second pile good genuine but very skinny realised 31*s.* per oz.

MYRRH.—In fair demand at steady rates. Of 91 packages offered to-day, 24 sold at 6*l.* 10*s.* for fair pale picked; 66*s.* to 71*s.* per cwt. for fair to good coarse siftings; and 40*s.* per cwt. for pickings. Sorts were bought in at 75*s.* per cwt.

NUX VOMICA.—9*s.* 9*d.* was bid and refused for a small lot of 15 bags dull grey seed from Colombo.

OIL (CASTOR).—Ten cases good Calcutta seconds sold at auction at 2½*d.* per lb. Another parcel, however, was bought in at 2½*d.*, the owner declaring that he was selling privately at 2½*d.* per lb. Twenty barrels *Italian* oil were bought in at 4½*d.* per lb.

OILS (ESSENTIAL).—Wayne County *oil of peppermint* in bulk is held for 10*s.* 6*d.* per lb. Eight cases of Japanese peppermint oil (Cocking's) are held for 11*s.* 6*d.* per lb., and 2 cases of a native brand (Tazeguma) for 10*s.* 6*d.* per lb. Of *Cajuput* oil 10 cases from Calcutta sold at 2*s.* 6*d.* per bottle, subject to approval. Two pots *rose oil* from Bombay were bought in at 8*d.* per oz., while settlings sold at 3*d.* per oz. Two cases of *oil of nutmeg* are held at 8½*d.* per oz. There was a parcel of 6 cases "essence of orange" (Neroli) from Paraguay (imported *via* Buenos Ayres). The oil is packed in cases of six 18-lb. tins and is held at 7*d.* per oz. A newly imported parcel of Dominican essential oils was bought in to-day. There was a case of sweet and bitter *oil of orange*, which was bought in at 5*s.* per oz. For a parcel of *oil of limes* a bid of 5*s.* 6*d.* per oz. was rejected. Of another parcel, 6 bottles *Dominica bay oil* sold at 7*s.* per oz., and one tin *lemon grass oil* from the same island at 8*d.* per oz.

OIL (EUCALYPTUS).—A good many parcels were shown at auction to-day, but no sales whatever were effected. The nominal rates at which the lots were bought in include *Platypus* in cases of four 30-lb. tins at 3*s.* 3*d.* per lb., a deep yellow oil at 2*s.* 3*d.* per lb., *Black Swan* brand at 2*s.* 2*d.* per lb. For other oil of pale yellow colour 1*s.* 9*d.* per lb. was asked without success. The sales included a large assortment of more or less well-known brands.

OPIMUM.—The London market is strong, and a fair business has been done during the week in various kinds. The supplies in the hands of importers seem to be rather small, and the market closes with a very firm feeling. Soft shipping opium is quoted at 11*s.* to 12*s.* 6*d.*; *Karahissar*, at 10*s.* 6*d.* to 11*s.* 6*d.*; fair to good seconds, at 9*s.* to 9*s.* 6*d.*; and Persian up to 11*s.* per lb., for fine quality. At auction to-day, 2 cases Persian opium in small leaves wrapped in red paper, analysing 9·80 per cent. of morphia, sold without reserve; bidding began at 5*s.*, and the parcel was knocked down at 7*s.* per lb. It had been returned from Hong Kong. A case of dull impure Turkey opium in cakes sold without reserve at 4*s.* 6*d.* per lb., which should not be taken as indicative of any market price.

ORANGE PEEL.—Slow of sale, and easier prices would probably be accepted; 38 packages offered to-day were all bought in; for good bright new *Malta* 1*s.* 6*d.* per lb. is the limit, and for dull peel from 10*d.* to 1*s.* is asked; old ringlets are held for 5*d.* per lb. Ten bales English cut strips sold at 1*s.* per lb.

ORRIS.—102 bags in the hands of various importers were shown to-day. The market does not seem very strong, but high prices are asked all the same—namely, from 82*s.* 6*d.* to 90*s.* for rather small yellowish to good bright Florentine, and from 72*s.* 6*d.* to 77*s.* 6*d.* for Veronese, according to quality.

PATCHOULY.—14 bales from Penang, fair flavour, but brown rather dusty were bought in to-day; no bids were made even at 2½*d.* per lb.

PILOCARPINE has been slightly reduced in price owing to the larger arrivals of jaborandi-leaves, and the figure of 65*s.* per oz. might probably be shaded a little.

QUICKSILVER.—After last week's reduction in price the market has remained quiet, at 6*l.* per bottle from the importers, and 5*l.* 16*s.* 6*d.* in second hands.

QUININE has been dull all through the week, and it would probably be possible to buy at 10½*d.* for second-hand German bulk. At the auction 5,000 ounces of Brunswick quinine in tins of 5 kilos (176¼ ounces) were bought in at 11*d.* per oz., the highest bid obtained being 10*d.*

RHUBARB.—In large supply, and selling at irregular prices, but cheaper. Of 154 cases 37 sold, as follows:—*Shensi*, round druggists' root, small fair coat, seven-eighth pinky, one-eighth grey fracture, 1*s.* 9*d.*; flat fine fracture, seven-eighth pinky, medium to pale root, fair coat, 1*s.* 7*d.*; round medium to pale, partly rough coat, three-fourths loose grey, one-fourth dark fracture, 1*s.* 6*d.*; round pale coat, three-fourths grey pinky and one-fourth dark fracture, 1*s.* 3*d.* (subject); ditto rather duller, 1*s.* 1*d.*; flat medium to bold dark grey, coat half grey and half dark fracture, 10½*d.*; smaller ditto, 10*d.* per lb. For one lot of very fine bold flat root of good pinky fracture a bid of 3*s.* per lb. is to be submitted. *Canton*, small to medium good coat and pinky fracture flat, 1*s.* 2*d.*; mixed sizes good bright coat ¾ pinky ¼ grey, round 1*s.* to 1*s.* 1*d.*, ditto flat 1*s.* 1*d.* to 1*s.* 1½*d.*, small root orange coat ¾ pinky ¼ dark fracture round, 1*s.*; flat ditto, also 1*s.*; good pickings, 11½*d.*; small druggists' root, 11*d.*; and medium to bold round root ¾ greyish and ¼ dark fracture, 10½*d.* per lb.

SARSAPARILLA.—*Jamaica* root is fairly steady; 10 bales sold at 1*s.* 1*d.* to 1*s.* 2*d.* per lb. for damaged. The exports of sarsaparilla from the Republic of Honduras in 1892 amounted to 2,724*l.* worth.

SENEGA ROOT.—Rather higher; New York quotes 1*s.* 6*d.* per lb., c.i.f. terms.

SENNA is in comparatively small supply, and the arrivals are also getting less. Of 175 packages Tinnevely leaves, 108 sold at a considerable advance, amounting in some cases to about 30 per cent. The quality was mostly low; medium greenish, partly yellow leaves, realised 3*d.* to 3½*d.*; small to medium greyish to low black, from 2¾*d.* down to ½*d.* per lb. *Alexandrian* senna remains cheap, small leaves sold at 3¾*d.*; siftings at 2½*d.*; and pods at 1¾*d.* for dark, and 2¾*d.* for fair pale quality.

SHELLAC has been firm all through the week. At the auctions second orange realised an advance of 2*s.* to 4*s.* per cwt.; but there was no change in garnet or button lac. Nine hundred cases sold at 103*s.* to 105*s.* for fair worked second orange. The market closes rather easier.

SQUILLS.—Fine bright quality sells well at 4¼*d.* per lb., but common dark root is difficult to dispose of even at 1*d.* per lb.

STAR ANISE.—For 20 cases spurious (Japanese) 25*s.* is asked.

TONQUIN BEANS.—Three cases fair frosted small Pará beans realised 2*s.* 6*d.* per lb. to-day; for another lot of new import no bids were obtained.

VANILLA.—The supply was very small to-day and sold without alteration in price, fair chocolate, 4½ to 6 inches, 7*s.* 6*d.* to 8*s.*; medium brownish, 4½ to 6½ inches, 3*s.* 6*d.* to 5*s.* 6*d.* per lb.

WAX (BEES').—Firmly held; *Jamaica* is in small supply, and still sells at 7*l.* 5*s.* to 7*l.* 10*s.* for orange and brown to fair bright, and 6*l.* 10*s.* for dark quality. Twelve packages bleached white *Calcutta* sold at 7*l.* 10*s.*, and for fair *Madagascar* 6*l.* 10*s.* was paid.

WAX (JAPAN).—34*s.* 6*d.* is asked for good quality.

THE AMSTERDAM CINCHONA MARKET.

AMSTERDAM, January 11.

ALL the analyses for the cinchona-bark sales to be held here on January 25 have been completed. The manufacturing-bark contains 22 tons sulphate of quinine, or 4.61 per cent. on the average. About 3 tons contain 1.2 per cent., 58 tons 2.3 per cent., 114 tons 3.4 per cent., 144 tons 4.5 per cent., 77 tons 5.6 per cent., 43 tons 6.7 per cent., 22 tons 7.8 per cent., 9 tons 8.9 per cent., 1 ton 9.10 per cent., and 2 tons 11.12 per cent. sulphate of quinine.

THE SICILIAN MARKET.

(From our Correspondent.)

MESSINA, January 12.

DEPRESSION IN THE PRICE OF SICILIAN ESSENCES.—The great fall in the value of Sicilian essences generally, and particularly essence of lemon, which commenced early in 1892, and continued till the end of the season in 1893, has finally resulted in a price being reached at which the manufacture is scarcely profitable. Several causes have brought this about. The bad state of trade all over the world, in particular in America and England, has caused the demand for luxuries of all kinds to diminish, and perfumery is one of the first articles to feel depression of this kind.

Dealers in essences, who are nothing if not speculators have lost large sums by speculating on a falling market in many cases lost the whole of their capital. Their troubles have been increased by the financial difficulties prevailing over the whole of Italy, owing to the rotten condition of the Italian banks.

This season there is a large crop of lemons, and a much reduced capital to deal with it. Producers and lemon-growers are compelled to sell from hand to mouth at what price they can get, and it is quite possible that many lemons will be left to rot on the trees, whilst prices in the coming summer may possibly rise to a considerable height.

The same thing is taking place with essence of orange. Producers have been selling at a price at which they lost money up till the present, and now that the manufacturing season is ended, prices are rapidly rising, and will probably be double what they were a month ago in the course of a few weeks.

The depression in Sicilian trade is not confined to essences, but applies equally to everything else produced in the island, and it is no wonder that the miserable peasants, actually starving and unable to pay the Government taxes on bread, have been driven to insurrection.

ESSENCE OF LEMON.—Prices continue low, and vary from 4*s.* 6*d.* per lb. down to 3*s.* per lb. according to quality.

ESSENCE OF SWEET ORANGE is quoted about 4*s.* 9*d.* to 4*s.*, and for future delivery higher.

ESSENCE OF BERGAMOT is lower than it has been for many years; prices vary from 8*s.* 6*d.* to 6*s.* 6*d.*

Large shipments of essence of lemon are being made for the English market; but, owing to the financial depression, very small orders are being received from America.

THE LIVERPOOL MARKET.

ANISE.—Part of the recent arrival of 91 sacks dusty *Chilian* has been sold at 23*s.* per cwt., and holders ask this price to clear. Good still held for 25*s.*

CALABAR BEANS.—Twenty bags good sound beans, just arrived, sold at 1½*d.* per lb.

GUM ACACIA.—The demand shows signs of improving, and very fair progress in sales has been made at prices ranging from 40*s.* for good to 47*s.* 6*d.* for good friable.

HONEY.—More inquiry is manifest, and sales have been made in quantity, Pile X. 33*s.*, Pile I. 29*s.* per cwt.

JABORANDI.—Fifteen bales have arrived, and will be offered at auction.

OIL (CASTOR).—Stocks are being steadily reduced on the spot, and although one weak holder has depressed the market it closes firm at 2¼*d.* per lb. for good *seconds Calcutta*. *French* oil is unchanged.

SEEDS (CANARY).—The strong position is well sustained, sales being made ex quay and store at 45*s.* 6*d.* to 46*s.* per quarter.

THE SMYRNA OPIUM-MARKET.

(Telegram from our Correspondent.)

SMYRNA, Wednesday night.

THE American manufacturers continue to buy, and our market is rising steadily. To-day's quotation for good current manufacturing opium is 9*s.* 5*d.* per lb., f.o.b. Smyrna.



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

Those who wish to contribute to any of the following discussions will please note the announcement on the first page.

London Manufacturers and the New Labour Rules.

SIR,—In your issue of January 13 last there appears an interesting article on "Labour in Chemical-works." Permit me to correct some inferences unfavourable to manufacturers which might be drawn from its perusal by those unacquainted with the facts.

In October the London Chamber of Commerce was specifically invited to assist the Home Office in its departmental inquiry into the condition of labour in chemical-factories. A meeting of the Chemical Section was called, and a resolution was passed expressing the readiness of the section to assist the Home Office Inquiry Committee. The section appointed a sub-committee, representing various branches of chemical industry, and also a purely scientific member. Later in the month the sub-committee attended by appointment at the Home Office. This sub-committee was surprised to find a code of rules already drafted; and a reference to your columns of January 13 will show that they were drawn up from the alkali-manufacture point of view. It is a fact that they were drawn up at the suggestions of representatives of that branch of industry, and were not agreed to from a consciousness of the unsatisfactory conditions of existing labour, but were really compiled from the regulations and practice existing in most of the works in question. The London sub-committee discovered that the rules were inapplicable to the smaller plants in use in that numerically large number of works referred to in your last paragraph, and therefore urged strongly three points, none of which were in the departmental draft rules, viz. :—

I. The best practicable means for securing safety to the persons and health of workers.

II. Large discretionary powers to inspectors, with appeal to the Home Office authorities.

III. The power to enforce, by fine or otherwise, the observance of these regulations upon the workmen.

In due course the Chemical Section was called together to discuss a report of its sub-committee in this sense.

Your article would lead to the inference that London manufacturers resented interference of any kind. Clearly this was not so; and the letter of Mr. David Howard, to which you refer, was sent in his absence to the meeting called to consider the report of an interview at the Home Office, in which he took a leading and conspicuously conciliatory part. The letter, which I am permitted to quote, reads thus :—

Hard-and-fast rules framed for great industries would be useless, and in many cases injurious, to the multitude of chemical industries carried on in London. These industries, though individually small, in the aggregate employ a great number of workpeople, and are carried on under such great disadvantages in the face of excessive German competition, that any vexatious interference, however well intended, would render many of them impossible and lead to their discontinuance. What is required is that large powers for framing regulations should be given to the factory or alkali inspectors, subject to appeal to the Board of Trade, and that means should be provided to punish by the criminal law wilful neglect to comply with the regulations on the part of workmen, not less than on the part of manufacturers.

The manufacturers did not denounce the proposed rules; they supported the recommendations of their sub-committee, which were backed up in precise and acceptable terms by Mr. David Howard in his letter. The whole point lies in submission to hard-and-fast rules unsuited in the main to branches of chemical industry, the practical conditions of which the Departmental Committee had taken no evidence whatever upon. The published Home Office rules show that at least two of Mr. Howard's points influenced the Departmental Committee—viz., the use of the best practicable means for securing safety to workmen, and the enforcement of the rules of procedure in law against the workmen—and I am sure that the conciliatory and sensible attitude of the numerically larger number of chemical manufacturers will secure the other point—namely, the bestowal of large discretionary powers upon the inspectors, with power of appeal to the Home Office, in which event the rules would be more drastic than those now issuing.

My excuse for this lengthy and explanatory letter must be the inference most likely to be drawn from your otherwise admirable article of January 13.

In conclusion, I would point out the desirability of collective consultation and action on the part of manufacturers through influential media, such as the Chambers of Commerce of the respective districts.

I am, Sir,

Yours faithfully,

THOMAS TYREB,

One of the Sub-committee.

January 16.

Miscible Liquors.

SIR,—As our name is intimately associated with the introduction of "Miscible" liquors, it is fitting that we should define our position with respect to them. Such definition is called for if the mental altitude of "Dispenser" writing in your last issue is at all general.

Confining ourselves strictly to the question raised, it is very clear that when a remedy which is included in the British Pharmacopœia is indicated, it is not open to the dispenser to use his own discretion. He must adhere rigidly to the instruction given him; discretion has already been used in writing them.

It would appear from "Dispenser's" question that there is a feeling abroad which credits the maker of an improved preparation with the intention or desire of forthwith replacing the original official one. For ourselves, nothing that we have said or written (in the case for example of "Miscible" cascara, the most important of these preparations) is in the slightest degree inconsistent with the most unswerving loyalty to the B. P. Indeed loyalty to the Pharmacopœia it is which impels the search for means of improving a preparation which seems defective.

There is no finality in pharmacy. As soon as a pharmacopœia is published do not editors, "companion" writers, botanists, chemists and pharmacists, get their interleaved copies ready, for the insertion of criticisms, additions, suggestions, observations and notes generally to the end that the next edition may be improved?

Is it not the duty as well as the privilege of a pharmacist whose tastes lie that way, to seek to make improvements in pharmacy, and having succeeded, as he thinks, to make them known in both medical and pharmaceutical circles, that they may be tried and tested, preliminary to their possible adoption into the next pharmacopœia?

Does it follow from this that the improved preparation must incontinently displace the official one, even though the former is generally recognised and welcomed?

The discretion is to be used by the prescriber, and if he desires the improved preparation, it must be dispensed, but it is quite open to the dispenser to bring the improvement before him.

The golden rule for the dispenser as for others is—follow instructions.

We remain, yours faithfully,

JOHN MOSS & Co.

SIR,—I cordially agree with "Dispenser" respecting "Miscible Liquors." So long as we have a Pharmacopœial standard, I think that every one deserving the name of dispenser should adhere to that standard, and not be tempted

into making any alteration whatever, even though such change should make the resulting compound more "elegant." I think faithfulness and uniformity should precede elegance.

Yours faithfully,
H. R. (211/71.)

SIR,—I am of opinion, that the B.P.'s authority is absolute; and the only guide for a dispenser, when dealing with preparations recognised by it. When drugs or chemicals not included in the B.P. are prescribed, it is the dispenser's imperative duty to obtain the best and purest. It is a laudable ambition to produce an elegant mixture, and always to be aimed at, but not at the expense of inaccuracy; and I maintain that a prescription is inaccurately compounded when a miscible ext. cinchon. liq. (—) is introduced when not specified, and by so doing a most unwarrantable liberty is taken and confusion bound to ensue. Not only do I contend that such departures are culpable, where the difference is patent to the patient, but I say that, *e.g.* in pill making, a dispenser has no right to substitute ext. coloc. co. (—) for B.P. ext. coloc. co. The B.P. preparations are notoriously imperfect, but the book has been issued as our standard; and we are not justified in introducing personal opinion. For the forthcoming B.P. let us hope practical pharmacists may have a large share in its compilation, and that before anything is included therein pros and cons may be thoroughly threshed out.

Yours, &c.
F. W. T. (161/93.)

SIR,—It appears to me that when a preparation is mentioned in B.P., dispensers have no right to go past that unless the prescriber's sanction can be obtained. We have fully reliable preparations which do certainly make a nicer looking mixture, and in the putting up of a chemist's own preparations these are certainly most useful and elegant, but in the dispensing of prescriptions it is not wise to ignore such a high authority as the B.P.

Yours truly,
JAS. A. ROBERTSON.
York, January 17.

A Clear Day Off.

SIR,—I have only just noticed a paragraph in your journal, under the heading "seasonable advertisements," in which you refer to the price-list issued by Day's Southern Drug Company (Limited). I am not aware that it was sent to you for comment, but since you have done the Company the honour of noticing it, I think it desirable that your remarks should not convey an erroneous impression which might act detrimentally to the Company's interests. I do not know what edition has fallen into your hands, and I cannot imagine how you arrived at the number of shops which you state that the Company possess. It is a matter of little importance, but I send you a price-list and blotter from which you will gather that we have more than fourteen pharmacies.*

What I particularly want to call your attention to is that the comparison of hours during which we carry on business in London and the country is, as it stands, very likely to convey the impression that all our employes in the respective shops are on duty during the hours named. This is not the case in London, nor generally in the country. It is, unfortunately, true that in certain districts of London the inhabitants will not do their shopping until a very late hour, and anyone who desires to supply them must keep open late or be content to do practically no business at all. For nearly twenty years I have used my best endeavours to shorten the hours of chemists' assistants, but I found that, in the districts referred to, early closing was simply impossible. The only course open seemed to be to give liberal compensation in time, although I am well aware that, in many chemists' shops, attendance is given by the assistants for quite as many hours per week as our shops are open, with practically no compensation. We decided (and, I believe, were the first firm in England to take that course) to give each assistant in the shops of which I have been speaking a *clear day off every week*, besides having his Sundays free, subject to taking

the two hours' duty in rotation. In other shops where the hours are not so long we allow, in some cases a half-day holiday, in others entire release from duty after a certain hour on one day per week, varying from 2 P.M. in some districts to 5 P.M. in others. I think the above statement conveys quite a different impression to that which would be gathered from your paragraph, though I do not for a moment suppose that you intended to make any unfair representation. Allow me to add that the number of qualified chemists engaged by this Company is nearer forty than twenty, and, to remark respecting our places of business (parodying an old saying), "pharmacies they are called, pharmacies they are."

Yours truly,
WILLIAM DAY,
Managing Director,
Day's Southern Drug Company (Limited).

Southampton, Jan. 15.

An International C. & D.

SIR,—Though THE CHEMIST AND DRUGGIST may be less interesting to me, a French pharmacist, than it is to the English pharmacists to whom it is more particularly addressed, still your journal contains such a variety and abundance of information and news, it is edited with such a clearness and with such a deep knowledge of all concerning the pharmaceutical art, that I cannot bring myself to give up reading it, if it be merely from love of my profession or as one of the dilettanti.

I wish to still continue to amuse and instruct myself by reading your really excellent journal. It would be improved in my opinion if you could make it a little more international, when you would certainly have still more continental subscribers.

Believe me, dear sir, yours sincerely,
Le Vésinet (Seine-et-Oise),
Jan. 14. A. SERÉE.

Malakine.

SIR,—With regard to a short notice contained in No. 716, page 4, of your paper *re* Malakine, a new pharmaceutical product of our manufacture, we beg to rectify the erroneous opinion given by your correspondent about the composition and the qualities of the same.

Malakine has nothing to do with a product brought into the market under the name of Saliphen, as it does appear from the note published in your journal; Malakine being a quite different article, possessing different physical and chemical and specially different physiological qualities from the so-called Saliphen.

Malakine, according to its chemical composition, belongs to the class of the Benzyliden compounds, and is characteristic for its qualities as an anti-rheumatic, anodyne, and antipyretic, while Saliphen is a substance of the series of aromatic carbon acid amido compounds, which has been found to have no therapeutical effects at all.

Yours respectfully,
SOCIETY OF CHEMICAL INDUSTRY IN BASLE.
Basle, Jan. 13.

What Becomes of Castor?

SIR,—In reply to your query, a prescription was dispensed here about two months ago containing tincture of castor.

Yours faithfully,
Portmadoc, January 6. T. JENKINS.

Mr. Whitton writes to say that he has frequently dispensed the tincture in a mixture presented for a customer last summer, ʒss. doses. This is, however, the only instance in which he has seen it prescribed.

Minor Examination.

SIR,—I was a candidate for above examination in October last. I then passed the first day, but failed in theory on the second day. Have since been at school. This week I again presented myself for examination, and got through first day without any intimation from my examiners that I had not

* Fourteen in the list we first received; twenty in the one which Mr Day sends.—ED.

done my work satisfactorily. The next day I received a notice from the Society saying that the work I had already done was such that it would be impossible for me to satisfy the Board of Examiners. Is there any consistency in my being considered qualified in my practical work three months ago and now, after three months' hard studying at one of the best schools of pharmacy in the metropolis, to be pronounced a failure?

Yours truly,

OMNIA. (204/30.)

Motto for a Cough-mixture.

SIR,—I wonder why some of my learned fellow-pharmacists do not search the classics for such lines as this from Lucretius, and turn them to business account:—

"NULLA DIES NOBIS MEROREM E PECTORE DEMET."

What more suitable for a cough-mixture?

Yours truly,

CACODYL. (151/94.)

[This is flagrant irreverence. "There is no day with anguish absent from the breast" is as true of editors as of the rest of mankind, especially when such flippant persons as "Cacodyl" cross the journalist's path.—ED.]

A Hint to Patent-medicine Men.

SIR,—Will you, through the medium of your paper, kindly give a hint to patent-medicine proprietors as to the advisability of notifying to chemists, &c., when they are going to "bill" a town (previous to "doing" it, of course)?—as we in towns where there are no wholesale houses are often very much inconvenienced by every other customer asking for "So-and-So's" pills, oil, syrup, as the case may be, and not having a good supply, thereby losing the sale and also disappointing our customers. As a rule, these kind of goods do not yield a sufficiently large profit to admit of telegraphing for more and having them sent on by passenger-train.

T. E. P. (225/28.)

Crystallisation of Water.

SIR,—The phenomenon to which your correspondent refers is identical in principle with that of suspended crystallisation in supersaturated solutions.

It is possible to reduce the temperature of water many degrees below the freezing-point without any formation of ice provided it is absolutely at rest; but disturbance, or the contact of a solid body, especially a fragment of ice, to form a nucleus instantly converts it into a solid or semi-solid mass.

Glacial acetic acid is a good illustration of the same phenomenon, and makes a very pretty and striking lecture-experiment.

The peculiarity of the case centres rather in the conditions of the "morning ablutions" as evidence of the Arctic weather than in the behaviour of the water.

Faithfully yours.

Phoenix Mills, Dartford, January 13.

A. SEARL.

SIR,—Perhaps the following will explain to Mr. Gunn the cause of the peculiar and sudden formation of ice he instances:—

If water be exposed to a great degree of cold and kept free from agitation, it may be cooled several degrees below the freezing-point—viz., to 21° F.—and yet remain fluid; but if it be then agitated, it instantly congeals, and at the moment of its congelation its temperature rises to 32° F.

Had Mr. Gunn tested the temperature of the water in the ewer previous to pouring it into the basin, he probably would have found the temperature considerably under the freezing-point; hence the action of pouring the water into the basin was the agitation required to cause it to crystallise.

Yours truly,

Cullerecoats, January 16.

P. WARDROPPER.

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers containing formulae, educational or other specific information can be obtained from the Publisher.

200/25. *Moor*.—Infants' Food.—The following formula gives a less expensive preparation than the one quoted in our issue for November 25 last:—

	Lbs.
Wheaten flour	1
Malt flour	1
Sugar of milk	$\frac{1}{2}$
Sugar	$\frac{1}{2}$
Butter	$\frac{1}{4}$

Get a baker to make this into biscuits in the usual manner, baking without browning in a low oven. Grind the biscuits into as fine powder as possible.

197/16. *Vaseline*.—Liquor Copaibæ Miscible is made by boiling together 2 parts of copaiba, 3 of liq. potassæ, B.P., and 7 of water. Set aside for a week, and draw off from the oily stratum above. We should point out that the preparation is a ridiculous one, and is probably inactive. It would be cheaper to make it by dissolving resin of copaiba in twice its weight of liquor potassæ (or q.s.) and making a 1-in-8 solution, as nearly neutral as possible.

197/4. *Persona* is in trouble with the following Furniture-polish. He cannot get it smooth:—

Linseed oil	Oj.
Vinegar	Oss.
S.V.M.	5iv.
Muriate of antimony	5iv.
Gum	5ij.
White of two eggs	

Mix.

"It has a good sale, and is unmistakably a first-class furniture-polish." There is no use of putting gum and spirit together. The latter precipitates the former. We should omit the gum, and put 1 oz. of concentrated infusion of senega in its place.

195/25. *Tafelite*.—There is no Hair-dye which answers the conditions which you lay down as to time; but the following preparation of bismuth gives a good brown colour in a few days, and is harmless:—

Bismuth nitrate	230 grains
Tartaric acid	75 "
Water	100 minims

Dissolve the acid in the water, and the nitrate in this solution. Pour into a pint of water, collect the precipitate, wash, and dissolve in—

Solution of ammonia (380) 2 drachms

Add—

Glycerine	20 minims
Hyposulphate of sodium	75 grains
Water to	4 oz.

Mix.

196/28. *Pediculis*.—We have examined the Nursery Hair-oil which you send, and find it to be made substantially as follows:—

Crystallised carbolic acid	5j.
Olive oil (coloured with alkanet)	3xxiv.

Melt the acid by heat, and dissolve in the oil.

The oil which has been used is of poor quality.

216/12. *J. P.*—You should address the Westminster College of Pharmacy in regard to Wills' "Materia Medica." You may, however, obtain a copy through our Exchange Column. Try.

198/39. *T. A. D.*—The best way to make a Fluid Soap for veterinary purposes is to dissolve good soft soap in a sufficiency of water. The following formula should suit you :—

Soft soap	1 lb.
Glycerine	1 oz.
Water	15 "

Heat the water and glycerine, and add the soap. When dissolved, set aside until clear.

186/52. *Mist. Tussis.*—Our examination of the Cough-mixture does not convince us that it is free from scheduled poison, for it contains chloroform. The quantity, however, is small, and it is questionable if it requires a poison-label. Try the following recipe:—

Vin. ipecac.	℥ss.
Acid. benzoic... .. .	℥ss.
Ol. anisi	℥ij.
Spt. ammon. arom.	℥ss.
„ camphor... .. .	℥ij.
„ chloroformi	℥vj.
Ext. glycyrrhizæ liq... .. .	℥ij.
Syrup. simplicis ad	℥xx.

Mix the spirits and dissolve the acid and oil in them, add the wine and extract, and shake the mixture well with the syrup.

The following scale of doses may be adopted :—

Above 14 years	1 teaspoonful
6 to 14 „	½ „
3 „ 6 „	15 drops
1 „ 3 „	5 to 7 drops
6 months to 1 year	3 „ 5 „

*Not to be given to a child under 6 months old. To be repeated three or four times a day, and given in water.

We have not examined the mixture for morphine or other poisonous alkaloid.

190/52. *Trienol.*—(1) Emulsio Amygdalæ for face-lotions should be made without gum or sugar. Equal parts of bitter and sweet almonds makes the best emulsion. (2) We have examined the powder for camphor, but can find none in it.

190/67. *J. Eau.*—The Metal-polishing Paste appears to be such a mixture as the following :—

Kaolin	℥iv.
Lard	℥ij.
Paraffin oil	a sufficiency

Melt the lard before rubbing it up with the kaolin, then thin with the paraffin oil.

The kaolin should be well sifted. Kieselguhr may be used instead of it, and with better results.

198/90. *Anon.*—The chief constituent of the anti-incerustation liquid is soda, and the brown colour is due to the presence of some vegetable extract, the nature of which we cannot determine, but it is not tannin. There is also present a little paraffin oil. From your analysis you should have no difficulty in compounding a similar preparation, colouring with any vegetable matter.

207/63. *W. A. Ross.*—You can only obtain the veterinary diploma by attending a college four years, after passing the Preliminary examination. See our last Educational Number.

205/11. *Nephtiké.*—We do not reply to anonymous correspondents. All that we gather from your postcard is that you hail from Cork, and addressed your communication to Edinburgh.

224/11. *J. B.*—We should not ourselves use the designation “medical pharmacy.” It seems much the same as “medical chemist and druggist.” But there is nothing very objectionable in it.

INFORMATION SUPPLIED.

For this section we are always glad to receive from subscribers brief notes on practical subjects, recipes which have been found good in practice or which have required modification, and hints or fresh ideas on any pharmaceutical or trade matter.

Drink Covering.—This query having elicited no reply, chemists probably being “on the teetotal tack” during this great festive season, I would advise the inquirer to shun such articles as cloves, peppermints, and tea, these resorts being too well known. Let him try cardamom-seeds, a few carried in the waistcoat-pocket are always ready for use after a “dram;” this is my favourite “tip.” A small tube of ol. myristicæ is also a good “killer” of whisky flavour: one drop placed on the tongue “does the trick.”

OLD SCOTCH WHISKY. 211/48.

200/25. Replies to this query have been received from Messrs. Samuel Larrance (Oban), Thomas Griffith (Clapham), and J. Cooke.

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following :—

210/7. “Romanshorn” brand of Swiss milk: where obtainable?

208/73. “Crown Toilet Paper”: where obtainable?

214/6. “Henry’s Compound Ointment of Eucalyptus,” a Melbourne product: where obtainable in this country?

Next Week.

Meetings, &c., to be held, and business to be transacted thereat. Suitable notices will be inserted in this section if received by the Editor on or before Wednesday.

MONDAY, JANUARY 22.—*Society of Arts*, at 8 P.M. “The Detection and Measurement of Inflammable Gas and Vapour in the Air.” Cantor Lectures. By Frank Clowes, D.Sc.

TUESDAY, January 23.—*Aberdeen and North of Scotland Society of Chemists and Druggists*, in Mollison’s Hotel.

TUESDAY, January 23.—*Royal Institution of Great Britain*, at 3 P.M. Professor Charles Stewart on “Locomotion and Fixation in Plants and Animals.”

WEDNESDAY, JANUARY 24.—*Pharmaceutical Society*, 36 York Place, Edinburgh, at 8.30. Notes on (a) “A Preparation of Iron”; (b) “The Standard Temperature for Specific Gravity”; (c) “Chloroform”; by D. B. Dott, F.I.C., F.R.S.E. “Papain Digestion, with Notes of Papain,” by Gordon Sharp, M.B. Edin.; “Notes on Additions to the Museum,” by J. Rutherford Hill.

WEDNESDAY, January 24.—*Brighton Junior Pharmacy Association*, at 9 P.M. Mr. B. Lomax, F.L.S., on “Facts about Evolution.”

THURSDAY, January 25.—*Chemists’ Assistants’ Association*, at 8.30 P.M. Discussion on “A Suggested Code of Pharmaceutical Ethics.”

THURSDAY, January 25.—*Liverpool Pharmaceutical Students’ Society*, at 8.30 P.M. Dr. J. B. Nevins on “Fifty Years of Pharmacy.”

THURSDAY, January 25.—*Liverpool Chemists’ Association*. Annual meeting: election for the Council of the Association, miscellaneous business, and President’s inaugural address.

THURSDAY, January 25. *Royal Institution of Great Britain*, at 3 P.M. The Rev. Canon Ainger on “The Life and Genius of Swift.”

FRIDAY, January 26.—*Royal Institution of Great Britain*, at 9 P.M. Alfred Percival Graves, Esq., M.A., on “Old Irish Song.”

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SYDNEY, 1879; BRIGHTON, 1881; BOSTON, 1883;
ADELAIDE, 1887; MELBOURNE, 1888; PARIS, 1889;
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 &c., &c., &c., &c., &c.

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ANOTHER INSTANCE

of the inferiority of the preparations placed upon the market is found in the authority to which we referred last week, but in this case Compressed Tablets were the subject of experiment, and not Coated Pills.

Here, again, we have the direct evidence of fraud and incompetence which characterise the attempts of unscrupulous persons to foist upon Chemists goods which are utterly useless for the purposes for which they are intended. Here we quote from the record as to Compressed Tablets :—

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CHEMISTS, DRUGGISTS,
AND
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LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the introduction of NEW SPECIALITIES, Patent Medicines, Druggists' Sundries, Perfumery, &c.

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		in Lots of 10 oz.	4/9 per oz.
Ditto	ditto	in Lots of 100 oz.	4/6 "

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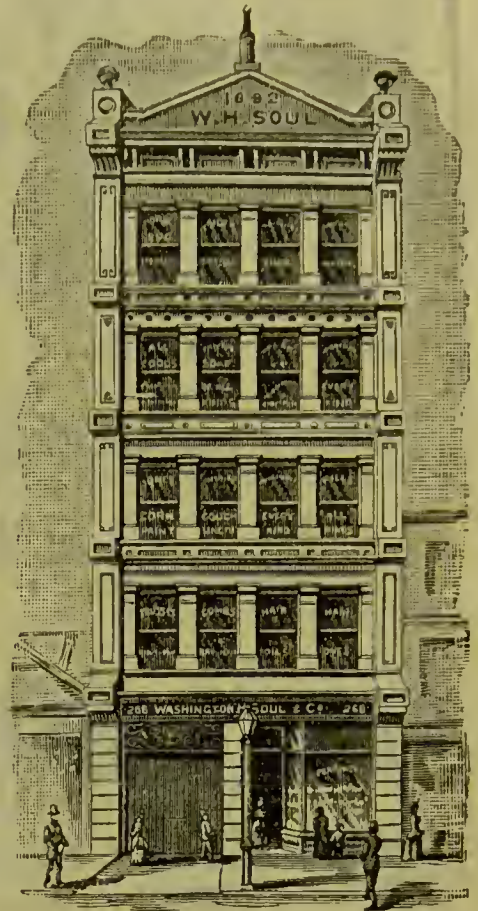
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to obtain from their
usual Jobbers.

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W. H. S. & Co. can arrange
with pushing Houses to receive
Goods on Commission for
Sale in this Colony.



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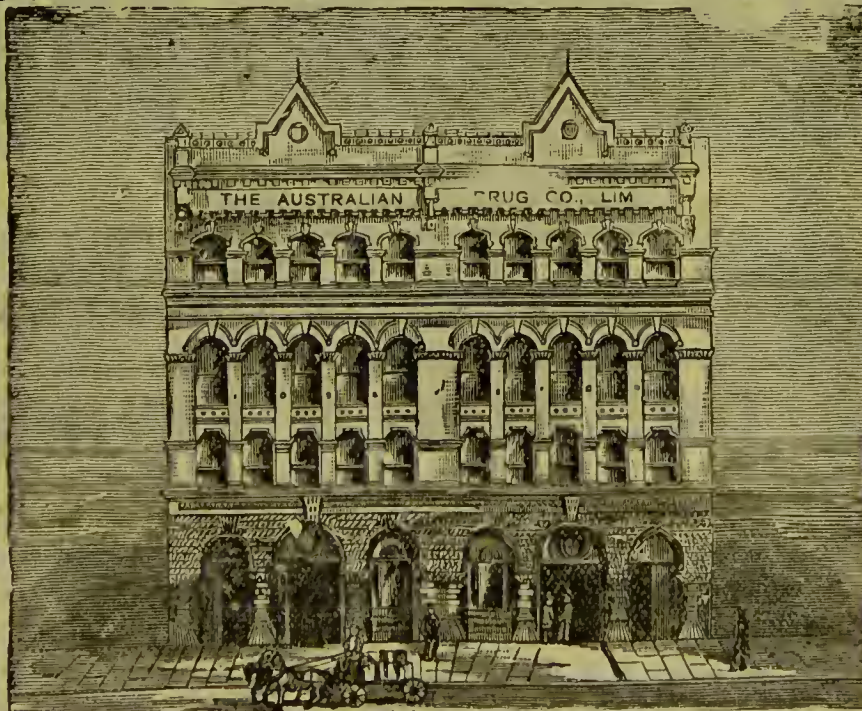


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FROM
6/3 to 18/6
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EXCELLED? NEVER.

MEDICAL and DRUG JOURNALS assign the Highest Praise for Elegance of Appearance, Absence of Injurion^s Varnish, Speedy Solubility, and Purity of Ingredients, to

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LOWEST PRICES CONSISTENT WITH HIGH QUALITY DRUGS.

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Write for New List to be issued in February, Post Free.

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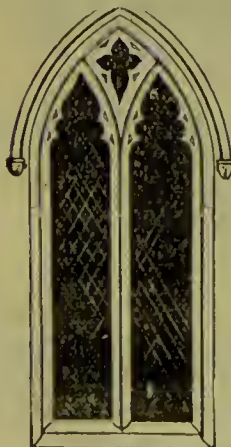


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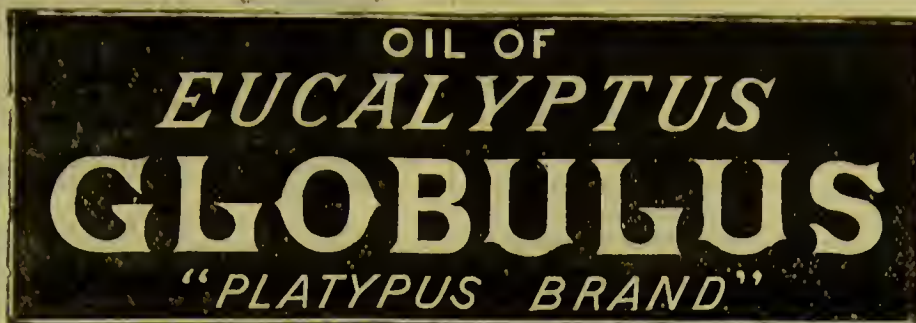


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Of late a spurious article has been offered for sale, put up in imitation of the genuine one even to copying the Pamphlet, Wrapper, and Labels. To protect the public from, and facilitate proceedings against, such frauds, the Proprietor has registered the Trade Mark here shown, a reduced copy of which will be found on the outside label on every bottle put up after this date. As a further security, the name "DR. BOW'S LINIMENT" (also a trade mark) appears in the Government Stamp.

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HELBING'S ANALYSIS.—Specific Gravity, 0.9175 at 15° C. Contains 44.9 per cent. Crystallisable Eucalyptol.
Free from Phellandrene, and from irritating constituents.

IN TASTE, AROMA, AND THERAPEUTIC VALUE

THE FINEST OIL KNOWN.

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A BEAUTIFULLY SCENTED OIL.

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30-lb. TINS. CASES OF 2 and 4 TINS. (Contracts at Special Prices.)

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KANGAROO EUCALYPTUS OIL

25-lb Tins.

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Contains 15 per cent. of genuine Carbolic, which is the best remedy for Sores. Insect Bites, Stings, Ringworm, Prickly Heat, or other Skin Ailments and Parasitic Complaints.

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60 GOLD AND SILVER MEDALS AND DIPLOMAS

For the Superior Excellence of their Preparations.



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"PINEOTAS" POWDERS, FLUIDS, AND SOAPS.

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PRICE LISTS FREE. HOME AND EXPORT.

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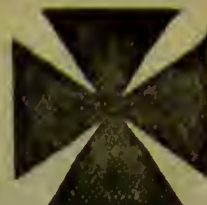
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8/- per Gross

CAMPHORTAR



A combination of Camphor, Eucalyptus, and Coal Tar. A Powerful Disinfectant, Deodorizer, Insect Destroyer, and Air Purifier.

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THE CHEAPEST DISINFECTANT BEFORE THE PUBLIC.

It is most elegantly and attractively packed in the form of Maltese Crosses wrapped in Gelatine, and commands a ready sale. Camphortar fills the sick room with a pleasant odour, and destroys disease germs in the air. Camphortar is equally destructive to Moths and other insects. Camphortar is used as a protection against Smallpox, Influenza, Fever, Epidemics, Cholera, and other infectious diseases.

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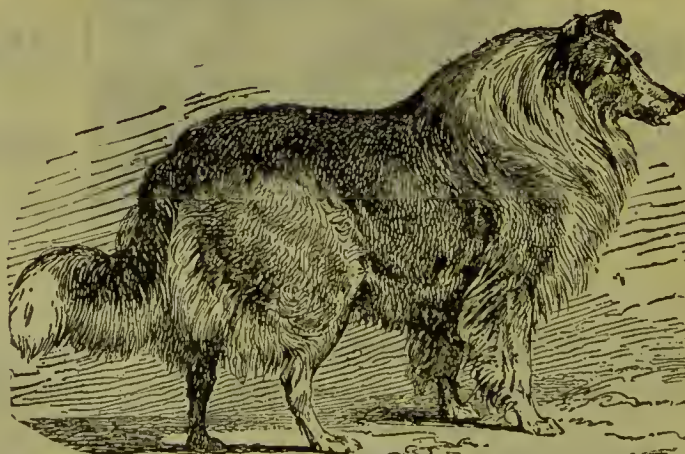
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HAPPY AND FREE FROM FLEAS

THROUGH USE OF

SPRATT'S PATENT

DOG



SOAP

**NON-
POISONOUS.**

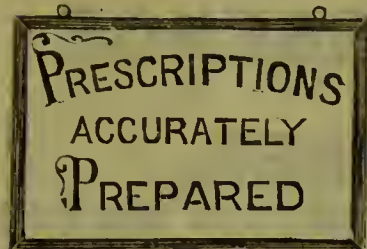
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MAKERS OF
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**TABLETS, WINDOW-SLIPS,
LAMPS, ETC.,
FOR CHEMISTS.**



A Tablet as above, size 13 x 10, in Opal or Coloured Glass, framed complete, ANY WORDING, sent (Carriage paid) for 4 6, two for 8 -

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Every description of Glass Decoration at Lowest Prices.

A GOOD LINE.**HARTLEY'S CELLULOID GOLD PAINT**

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GLASS BOTTLES

GOOD AND CHEAP.

From Stock
in London or
direct from
the works.

THE NEW SHAPE FLATS,

With rounded edges, or the ordinary kind, plain or graduated.

3 and 4 ounce 8/- per gross.
6 and 8 " " " " 9/- " "

WHITE MOULDED PHIALS.

1 oz. 1 oz. 1½ oz. 2 oz.
3/6 - 3/9 .. 4/6 .. 5/3 per gross.

PANEL BOTTLES.

2 oz. 4 oz. 6 oz. 8 oz.
7/- .. 8/- .. 9/- .. 9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample Bottle sent free on application.

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Established 50 Years Bankers—London and Westminster Bank.

"IZAL" IS THE

NEW NON-POISONOUS DISINFECTANT

IZAL

And is now
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Show Cards,
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Allen & Hanburys,

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Who are the Sole Bottling
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FIG. 1.



FIG. 2.

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**OIL
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AND SAVE

OIL, TIME, MONEY.

THOUSANDS IN USE.

We have bought the Stock of these Pumps from

MESSRS. PONTIFEX & WOOD,

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Who have given up this part of their business,
and it is our intention to continue same.

We hold a Good Stock, and can give
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WILEY'S CHEMICAL ESSENCE
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Sole Maker - **F. E. ROOKLEDGE, EASINGWOLD.**
 ORDER FROM YOUR WHOLESALE HOUSE.



AND PRONOUNCED BY THE MEDICAL PROFESSION TO BE UNSURPASSED.

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"Practically tasteless and free from smell, contained no fat or resin, * * * carefully manufactured."

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 ESTABLISHED 1838
ESTABLISHED

ROUND, OVAL, SQUARE, or FOLDING, for the
DRUG, DRYSALTERY, AND CONFECTIONERY TRADES.

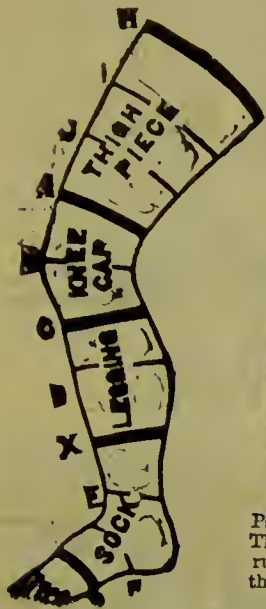
LABELS, WHEN PRINTED TO OUR INSTRUCTIONS, WE PUT ON PILL
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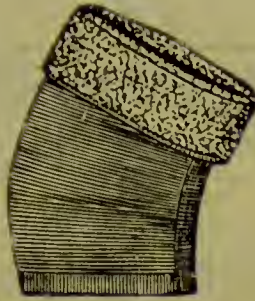
Baking Powder, Black Lead, Bottles, Camphor Ball, Capsules, Castor Oil, Cough Lozenges, Dispensing Powder, Eye Ointment, Fancy Boxes, Fuller's Earth, Folding Boxes, Glass Top Outers, Homeopathic Bottles, Insect Powders, Ink Cases, Jewellery, Lozenge, Lip Salve, Magnesia, Metal Paste, Marking Ink, Nipple Shields, Night Lights, Parcel Post, Pastilles, Pills, Potash Tablets, Plasters, Salt Lemon, Seidlitz Powder, Starch Gloss, Soaps, Soda Powder, Syringes, Tapers, Tooth Powder, Violet Powder, &c.

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ELASTIC SURGICAL STOCKINGS, APPLIANCES, &c.



Patent Pile. Protected, 14,618.
The Pile lying over the India-
rubber Cords, protecting
them and forming a smooth
soft surface to the limb.

LATEST NOVELTY. NEW SUSPENSORY BANDAGE, THE "OCTOPUS."

Packed any way
in
Envelopes, Boxes,
&c.

The Band of this SUSPENSOR being
cut a peculiar shape, so as to fit
parallel with the External Oblique
Muscles, and Buckling on each
side of the Purse, clings to the
Body as firmly as an "OCTOPUS."
It can also be adapted by the
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Registered, 185,228.



No one will wear
the other shape
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of this kind.

Fitted with Galvanic Discs, it is a
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It is specially adapted for Riding,
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Sports.

Handbook of my Manufactures will be forwarded to any Surgical Instrument Maker or Chemist free.

MAGNETIC BELTS AND APPLIANCES.

Plastic Surgical Stockings, Knee Caps, &c.
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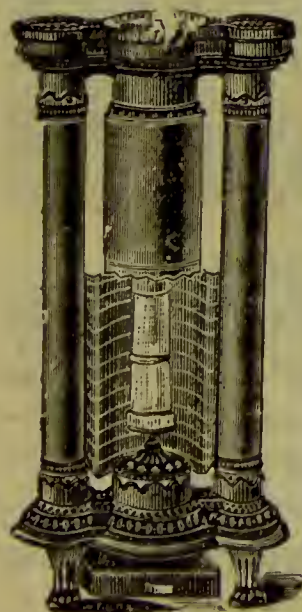
J. H. HAYWOOD, *Surgical, Electrical, Athletic, and
Veterinary Appliance Manufacturer,* **CASTLE GATE, NOTTINGHAM**
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AGENTS WANTED FOR THE SALE OF
"THE SYPHON" (REGISTERED TITLE) **HYGIENIC CONDENSING GAS HEATING-STOVES**
(CLARK'S PATENT).

A Necessary for all Invalids. A Comfort to Everybody.

NO FLUE REQUIRED. FREE FROM SMELL OR SMOKE.



All injurious vapours are reduced to harmless liquid inside the
Stove, and passed out at foot into a tray provided for that
purpose.

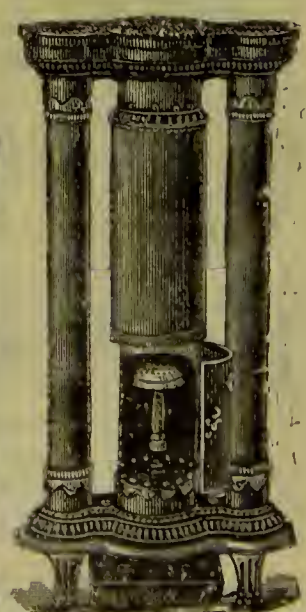
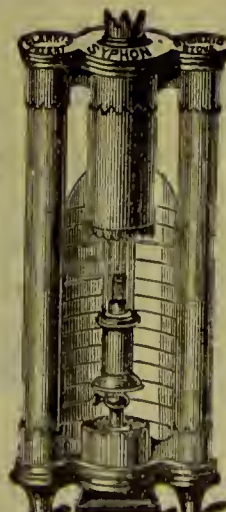
For use in Hospitals, Sick Chambers, Bedrooms.
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They give a Pure, Equable, and
Agreeable Heat, which can be
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will of the user.

Specially suitable for pa-
tients suffering from Bron-
chial affections, as a moist
atmosphere is obtainable
when required.

For Terms, Particulars, and Prices, apply
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Telegraphic Address—"SYPHON STOVES LONDON." Wholesale Agents—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.



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In ONE WEEK three curious uses were reported for which
"THE LEICESTER" IMPROVED ADHESIVE PLASTER,
ON FINE FLESH-COLOURED CAMBRIC,
is found the best after trying other makes (in the first case, nearly every known plaster).
A well-known actor said he had the good fortune to meet with it in the South of Eng-
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will hold the lids up so well as "The Leicester" Improved Adhesive Plaster on Fine
Flesh-coloured Cambric. Surgeons in all parts are frequently commending it. The sale
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Samples, &c., on application.



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ROUNDED-CORNER DISPENSING FLATS

in Perfect Shape has been Prepared by us
and THESE BOTTLES are

NOW IN STOCK

at our Last Reduced Prices.

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OF EVERY DESCRIPTION.

Revised Price List on Application.

FEEDING BOTTLES AT LOW RATES.

Write for Prices of any kind of Bottle required to

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36. 38. & 40 GREAT GARDEN STREET, WHITECHAPEL, LONDON, E.



NEW CAPSULING MACHINE

The only Machine
which leaves no crease
or pleat on the
Capsule.



Can be fixed to any
Counter.
A single pull of the lever
is sufficient
to fix the Capsule.

Patentee—**C. MELIN, 37 Crutched Friars, LONDON, E.O.**

CORNS or BUNIONS.**A GOOD LINE FOR CHEMISTS.****IT WILL PAY TO STOCK AND PUSH OUR FAMILY
BOOT STRETCHERS**

They will win the gratitude of customers and profit for yourselves.
Worked by powerful screw action. Three Brass Corn and Bunion Pieces,
which can be adapted to Relieve Pressure of Boot on any part of the Foot.
WILL STRETCH OR BLOCK ANY SIZE.



THE FAMILY BOOT STRETCHER.

RETAIL, PRICE

5/-

EACH.

TO BE HAD OF THE MAKERS—

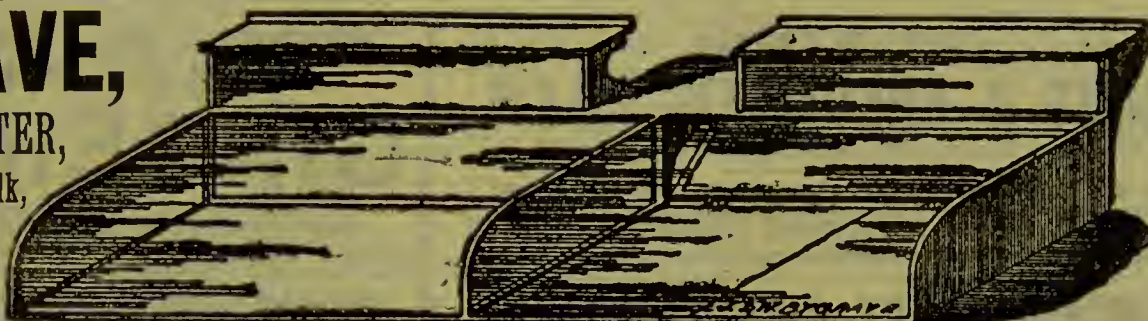
E. & W. BELDEN, BOOT TREE & LAST MANUFACTURERS,
167 GREAT DOVER STREET, BOROUGH.
TERMS ON APPLICATION.

SIX Ranges of Spanish Mahogany-fronted Drawers, with crystal-cut knobs, bevelled-edged labels highly done in black and gold, lockers underneath, and massive mahogany shelving above, fitted with carved pilasters, &c., various sizes. Three Massive Dispensing-screens (with or without bottoms) with bevelled or embossed mirrors in centre; all the latest designs. We have a large selection of Counters, Counter-eases, Desks, Window-fittings, also the Complete Fittings of a high-class Chemist's Shop; inspection invited. Shops fitted up in all parts of the country; estimates free. Only address, Edwards & Co., 106 Whitechapel, Liverpool.

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SHOP FITTER,

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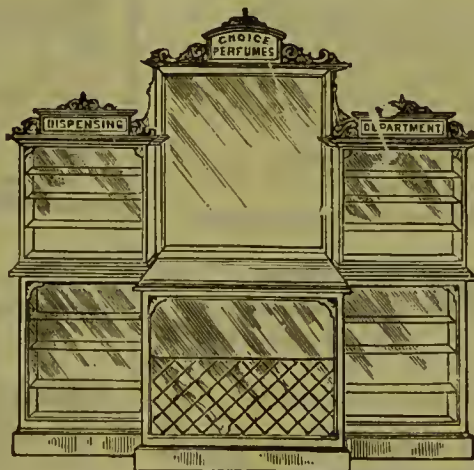


Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), **£5 10s.**; 5 per cent. off for cash.

"THE CHEMIST" DISPENSING COUNTER.

8 feet long by 2 feet wide .. **£24**
If the Dispensing Screen only .. **£12**

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison-cupboard. The inside of counter fitted with strong counter-drawers, label and cork drawer, open shelves, &c.

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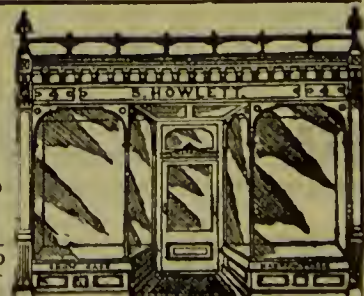
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SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

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CABINET FITTER to the Pharmaceutical Society of Great Britain.

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BLAUD'S PILLS (*Best Quality, Soluble Coating*).

10-gross Tins, carriage paid, for 4/8. Cash with order.
7-lb Tins (56 gross), carriage paid, for 21/-. Cash with order.

COMP. SULPH. LOZ. (Garrod's Formula) & TABLETS.

4 lbs., carriage paid, for 4/-. Cash with order.
7 lbs., carriage paid, for 6/8. Cash with order.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

JAMES N. DAVIDSON & GRAY, CHEMISTS, DUNDEE.

COFFEE.**THE "ORIGINAL CANISTER" & ROASTED COFFEES**

These Coffees have been before the Public for nearly 50 years,
and are the very best of their kind.

WHITE, FAIRCHILD & CO., 30 Gt. Tower St., E.C.

ESTABLISHED 1847. AGENTS WANTED.

**BLAIR'S
GOUT & RHEUMATIC PILLS**

Cure Gout, Rheumatism, Sciatica, Lumbago, Neuralgia.

The **Excruciating Pain** is quickly relieved, and cured in a few days, by these celebrated Pills, well known as the **Great Remedy** for the above Complaints. **NO POISONOUS INGREDIENTS.**

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SPECIALITIES OF

FREDK. GRAF,

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PRICES AND SAMPLES ON APPLICATION.

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In 40-gallon returnable iron casks, pure tinned, with screw bungs, interchangeable brass taps and spanners for opening. Farina, Dextrine, Glucose, Alcohol absolut., Fusel Oil, Pear Oil, Lime-Soda-Lead-Acetates, Verdigris, Acetic Acid, Wood Naphtha, Charcoal, Ammonia liquid 880-900, anhydrous Sodium Sulphide, Bromides, Iodides, Chloralhydrate, Boracic Acid, Sulphate of Copper, Permanganate of Potash, Ol. Caryophyll., Menth. Pip., Pini, Juniperi.

HUGO LORENZ, 7, 8 Idol Lane, LONDON, E.C.

See also page 114, March 18 issue.

OXONIA

The New Lotion for Rodent Ulcer, Cancer of Tongue, Lips, Lupus, Ringworm, Varicose Veins, &c.

Retail, 2/9 per Bottle. Trade, 23/- per dozen, subject.

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NESS & COMPANY, DARLINGTON,

SPECIALISTS IN

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NOS. 1, 2 & 3.
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PRECIPITATED CHALK, WHITEST & PUREST.

CHEAPEST SELLERS IN THE MARKET.

ALSO CHEMICALS, DRUGS AND OILS.

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DENTISTRY.

First-class Mechanical work undertaken for the Profession at very low charges. Satisfaction guaranteed.

PRICE LISTS FREE.

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BELFAST
GINGER ALE**

Sole Purveyors to Spiers & Pond (Lim.)

DRUGGISTS' SUNDRY GOODS.**HEATH BROS.,**

27 BLACKFRIARS STREET, MANCHESTER,

Being cash buyers can offer all lines at the very lowest prices.

WRITE FOR QUOTATIONS.

Bromley's Gout & Rheumatic Pills *Estab. 1807.*

FREE Printing of Chemists' own Circulars.

READ DIARY, 1894, PAGE 265.

Voted 5th out of 500 representative firms' announcements in Diary, 1893, as most useful and most likely to bring best results. Awaiting your esteemed reply to-day, with copy for Handbills or Labels.

SIR THOMAS'S BUILDINGS, LIVERPOOL, ENGLAND.

Estab. 1807.

WILL CURE.

CHEAPEST.

Retail Profit

£1 on £3.

Full retail

prices absolutely

guaranteed.

"WE MARCH WITH THE TIMES"

And push the Best Values in

ESSENTIAL OILS, FRENCH EXTRACTS, CONFECTIONERY, COLOURS, DRUGS, &c.

VEGETABLE AND FLOWER SEEDS in packets, 5s. per gross.

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16 Lawrence Pountney Lane, E.C.



E. H. THIELLAY'S (Registered 1867)

EAU F. JOUVENCE, GOLDEN.

Producing Flaxen Golden Hair.

Gold Medal, PARIS, 1867. PHILADELPHIA, 1876.

This is a very superior article. In Bottles at 3/6, 6/-, & 10/-

All Wholesale Houses, or direct from

E. H. THIELLAY,

Parfumeur-Chimiste, Amersham Park, New Cross, LONDON S.E.

(SHOWROOM AT CHARING CROSS HOTEL.) [3]

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IS THE CHEAPEST PURE OIL ON THE MARKET.

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Concentrated
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INERY
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IT WILL COST NOTHING

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HAND-PICKED GUM ARABIC.

Wholesale and Export Druggists before buying elsewhere
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For Cuts, Scratches, Scalds, & other Medical purposes.
Any size cut for Chemists. Wholesale and Export.

GOLD & SILVER LEAF & BRONZE POWDER

DIRECT FROM MANUFACTURERS.

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Cheapest and Best

**GUTTA PERCHA OR METALLIC
TOOTH STOPPINGS**

Which are Manufactured by J. J. LAKEMAN, Dentist, LAYTONSTONE,
Maker of the MERMAID IMPRESSION COMPOSITION for Dentists'
use, 3s. per lb., post free.

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23 & 24 Redcliff Street, BRISTOL,

WHOLESALE DRUGGISTS,

LICENSED MAKERS OF METHYLATED SPIRITS,

PROPRIETORS OF STODDART'S SEA SALTS.

Correspondents requested to specify precisely the quantity they can buy.

**WATSON & WATES
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93 LEADENHALL ST., LONDON, E.C.

SEND FOR REVISED PRICE LIST OF

HOMŒOPATHIC MEDICINES.

WORDS OF MERIT.

A CHEMIST WRITES:—

"JANUARY, 1894.

"YOUR CASE HAS BEEN VERY MUCH ADMIR-
ED AND GIVES ME GREAT SATISFACTION. IT IS
VERY HANDSOME AND CONVENIENT, GREATLY
IMPROVING THE APPEARANCE OF MY SHOP.
THE SALES ALREADY MADE FROM IT REPRESENT
A MONTH'S BUSINESS IN HOMŒOPATHICS
PREVIOUS TO STOCKING YOUR MEDICINES."

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public.
It is warranted to retain its properties and keep in good condition in any climate. The original and only
genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed.
Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.
Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

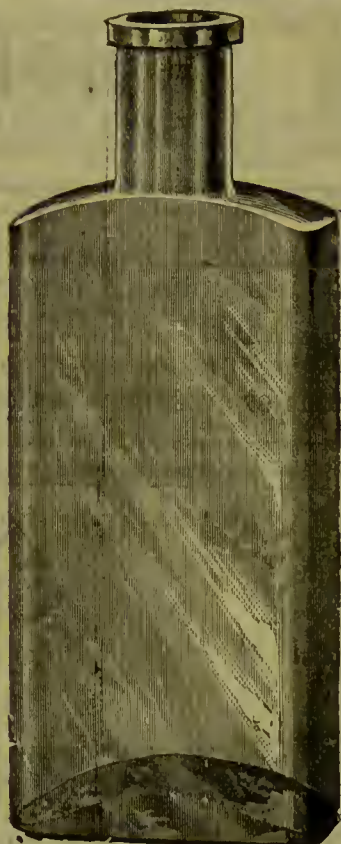
The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards
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"THE CHEMIST & DRUGGIST" WINTER ISSUE,

JANUARY 27, 1894.

For Terms, &c., apply to THE PUBLISHER, 43 CANNON STREET, E.C.

GLASS BOTTLES



FLAT—with Round Edges.

DISPENSING BOTTLES.

BEST QUALITY,

SUITABLE FOR A HIGH-CLASS TRADE.

GREEN FLINT.

Flats (ordinary and round edges), Ovals, Direct Squares, Rounds and Octagons (plain, graduated, and lettered),

3	4	6	8	12	16 oz.
10/-	10/-	11/6	11/6	16/6	21/6 per gross.

WHITE VIALS (Plain and Graduated),

$\frac{1}{2}$	1	$1\frac{1}{2}$	2	3	4 oz.
4/4	4/6	5/3	6/-	8/-	9/3 per gross.

SAMPLES ON APPLICATION.

FEEDING BOTTLES.

No.	6½-inch Rubber Tube.	Small lots.	2-grs. lots.	
1.—Green Bottles, Boxwood Top Corks,				
White Fittings	... ..	25/-	24/-	} per gross.
3.—Ditto, Black Fittings	... ..	27/6	26/6	
White glass	2/8 per gross extra.			
China tops	1/8 per gross extra.			
64.—Green Bottles, Glass Screw Stoppers,				
White Fittings	... ..	30/-	29/-	} per gross.
68.—Ditto, Black Fittings	... ..	32/6	31/6	
White Glass	3/- per gross extra.			

These prices include 1 doz. partitioned Wood Boxes. If Bottles are loose 1/9 per gross less.

Supplied each Bottle in Cardboard Box at 4/6 per gross extra.



MINERAL WATER BOTTLES AND BOXES OF ALL KINDS.

Illustrated Catalogue containing full particulars sent on application to

KILNER BROTHERS,

NO. 3 GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.

SALEABLE WINTER LINES.

THE "NORSE" CHEST PROTECTOR.

THIS article is made from fleecy elastic woven wool, is warmer, lighter, and more ventilating than the ordinary stiff felt, and does not turn cold and damp when worn; moreover, it is washable, and can consequently always be kept clean with very little trouble. The advantages of this Protector have been so rapidly appreciated by both the public and the trade that we are anxious that all our friends should handle them early, feeling sure that repeat orders *must* follow. To facilitate this, we are willing to send a sample set, consisting of one each, Nos. 1, 2, 3, and 4, single and double, and invoice them at 12/6, post free, to Chemists having Ledger accounts with us; or for P.O.O. 12/6 to those who have not. We are aware that most of the trade have made up their stocks for the winter, but a few of an attractive saleable novelty like this would most decidedly give their old stock a pleasingly diversified appearance and most probably produce quick sales, as there is a certain class of people who are always only too glad to avail themselves of any novelty of this description even should they be wearing an ordinary felt one at the time.

PRICES.

Single, No. 1, 7/6; No. 2, 9/6; No. 3, 12/-; No. 4, 15/-; No. 5, 18/-.

Double, No. 1, 16/-; No. 2, 21/-; No. 3, 28/-; No. 4, 34/-; No. 5, 42/-.

Less usual discount. 1 doz, assorted packed in Glass-top Showcase.

DR. MONROE'S ELECTRIC SOLES.

These are now selling very freely, and the only pushing they require is a place on the counter or in the window, when they sell themselves. The word "Electric" is not humbug, as each pair is thoroughly magnetised, which can be demonstrated to the public by the Compass that accompanies each dozen. To introduce them to customers who have not an account with us, we shall be pleased to send forward a sample dozen pairs in a handsomely labelled box for P.O.O. 4/-.

AYRTON & SAUNDERS, 149 DUKE STREET, LIVERPOOL.

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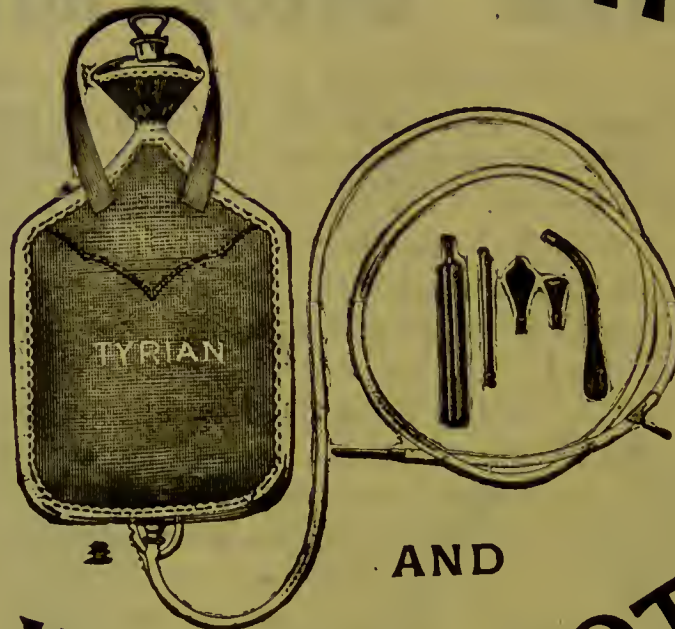
Telephone—
423.

Telegraphic Address—
"SUNDRIES LIVERPOOL."

"TYRIAN"

COMBINATION

FOUNTAIN SYRINGE



HOT

AND

WATER BOTTLE.

A COMPLETE FOUNTAIN SYRINGE

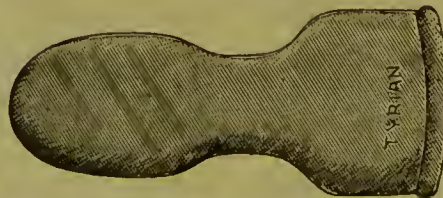
With Six Hard Rubber Pipes, the Rectal, Nasal, Eye, Spray, Bent Vaginal, and large Vaginal Irrigator.
The Bag and Tubing are of Best Quality White Rubber, and guaranteed perfect.

AN EXCELLENT HOT WATER BOTTLE,

Holding Two Quarts. The whole handsomely put up in Polished Wooden Box.

"TYRIAN" No. 85 NIPPLES

PURE



GUM.

To go over neck of bottle. This shape of Nipple (with constricted neck) is the style used more than any other in the United States.

THE ABOVE GOODS ARE MANUFACTURED BY
THE TYER RUBBER CO., Andover, MASS., U.S.A.

Carried in Stock **IN LONDON** by
HENRY W. PEABODY & CO., 5 EAST INDIA AVENUE.

To whom apply for Prices and Information.

The Chemist & Druggist

SUPPLEMENT.

Businesses Wanted
Businesses for Disposal
Premises to Let
Auction Sales

SATURDAY, JAN. 20, 1894.

Partnerships
Situations Vacant
Situations Wanted
Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

THE IMPORTANCE OF NEXT WEEK'S SUPPLEMENT.

ALL those who have a Business to dispose of or want to buy one, who are in need of an Assistant or want a Situation, or have any announcement to make in this Supplement, should note that next week's issue gives them an exceptionally good opportunity of advertising. The circulation will be at least

ELEVEN THOUSAND.

A Supplement will be inserted in every copy of THE CHEMIST AND DRUGGIST, and will be given free to anyone applying for it by post or at the Office. We shall be glad if Advertisements are sent in as early in the week as possible. We cannot guarantee insertion next week of advertisements for this section received after 5 P.M. on Thursday.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£600.—LONDON, W.—In a leading thoroughfare; an established Business; all ready money; returns £600 yearly; full prices; commodious house, well-appointed and very convenient; shop is well-fitted and good stock; about £600 required.

2.—£1,300.—LONDON.—Handsomely fitted shop; situate in a prominent position; returns last year between £1,300 and £1,350; *profits not one-third*; full investigation invited; price about one year's return; all information in confidence on application.

3.—£650.—LONDON, N.W.—Dispensing and Retail Business; situate in a very good-class locality; returns about £650 yearly, *very good profits*; the shop is well-fitted and stock well-selected and ample; comfortable nine-roomed house, private entrance; lease at moderate rental; price about £550.

4.—£1,000.—LONDON, W.—Old established good-class Business; situate in a main thoroughfare; the business has been somewhat neglected of late, but has averaged until last year £1,000 yearly; handsomely fitted shop and good house; capital nucleus; price required about value of stock and fixtures.

5.—£600.—LONDON, CITY.—Foreign Pharmacy; well-fitted and stocked; good-class Retail and Dispensing; situate in a good position for cultivating an extended foreign business, for which the position is advantageous; the Business at present embraces ordinary Retail and Dispensing (English); there is no opposition in the foreign department; price about value of stock and fixtures; present returns £600.

6.—£500.—LONDON, N.—Retail and Dispensing Business; situate in a good middle-class suburb; returns £500 yearly, *profits fully up to average*; well-fitted shop and excellent house with garden; rent very moderate; price about £500; inspection invited.

7.—£700.—LONDON, N.W.—Retail and Dispensing Business; situate in a main road; returns £700, *profit good*; well-fitted shop and good stock; good-sized house on lease; price about £550.

8.—£1,300.—WEST OF ENGLAND.—In a pretty rural district; a Dispensing and Retail Business; returns £1,300; *profitable*; good proportion of proprietary articles; shop well-fitted and good stock; commodious house, held on lease; price £650.

9.—£700.—FASHIONABLE TOWN, SOUTH.—Good-class Dispensing and Retail Business; returns over £700 yearly; capital position; close to rail; price required very moderate; inspection invited.

10.—£1,200.—WEST OF ENGLAND.—Mixed business (Dispensing Retail and Agricultural); returns £1,200 yearly; good proprietary trade; the business admits of very considerable extension; good house and business premises; price required £700 cash.

11.—£325.—HANTS.—Retail and Prescribing Business; established many years; situate in a village within easy distance of Southampton; returns between £325 and £350 yearly; dentist wanted; good-sized business premises; low rental; convenient house; price about £300.

12.—£400.—KENT.—Easy distance from London; Retail and Prescribing; very profitable old established concern; returns under management £400 yearly; capital investment for a small capitalist; about £300 wanted; rent is very low.

13.—£1,100.—HERTS.—Rural District; Mixed Business, including wines and spirits; returns about £1,100 yearly, *all good profitable business*, and admits of extension; convenient house; low rental; valuation only about £800 to £900.

14.—£3,000.—WHOLESALE.—Mixed Wholesale (no Retail); situate in a good business centre; returns £3,000; capital opportunity for introducing proprietary articles, not hitherto done; the stock and fixtures are offered at valuation, say about £1,800.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

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TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the special attention of a London Agent.

SPECIAL NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital, from £200 to £500.

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F. J. BRETT,

VALUER, LEICESTER.

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE. NO CHARGE TO BUYERS.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

£1,200 returns.—General country retail, WILTS; rent £30; price £700.

£4,200 returns.—Wholesale and retail in good midland market town; nett profit about £800; price about £1,800.

£800 returns.—STAFFS.—Wholesale and retail; can easily be doubled; good house; valuation about £350; £750 returns; first class retail and dispensing in suburb of large midland town; price about £700, or valuation.

BERDOE & CO.

CHEMISTS' TRANSFER AGENTS AND VALUERS,
30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

NOTICE TO VENDORS.

Having been for the past 22 years solely engaged in the Sale, Purchase, and Valuation of Chemists' Businesses, we have, as Transfer Agents and Valuers, the largest experience of any in the Trade. VENDORS placing their businesses in our hands for transfer may in all cases rely upon a speedy sale being effected without undue publicity. Terms forwarded post free on application. No sale, no charge.

BUSINESSES WANTED. NO CHARGE TO PURCHASERS.

1.—NORTHAMPTONSHIRE.—Village Business; returns £570, under manager; net profit nearly £200; rent £25; good house; principal could increase trade; price £350 or offer; thoroughly reliable.

2.—DEVON (South).—Near the sea; Retail and Prescribing Business; returns £400; good house; large garden; low rent; price £250, or valuation of stock and fixtures; no goodwill.

3.—MIDLANDS.—Retail and Prescribing Business; in same hands 20 years; retiring; returns £800; net profit £300; low rent; good house; price £400, or valuation; no goodwill.

4.—KENT (Coast).—Unopposed Light Retail, Dispensing, and Prescribing Business; returns £600; excellent prices; low rent; good house; corner shop; price £250, less than valuation; personally inspected.

5.—HANTS.—Retail and Prescribing Business; returns £522; capable of doing double; neglected through old age; convenient house; shop well fitted and stocked; price £250, or offer.

6.—BRISTOL.—Retail and Prescribing trade; returns £430; net profit nearly £200; low rent; good house; selling through old age; has done £800; price £200, or offer.

7.—LONDON, W.—Retail and Dispensing Business; returns over £1,000, under manager; splendid position, in main thoroughfare; good house; price £700.

VALUATIONS.

SPECIAL ATTENTION is paid to valuations, which are personally conducted by a member of the firm in any part of the United Kingdom. Our terms, which are moderate, may be had on application.

Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

ANDROS & CO.,

Chemists' Transfer Agents and Valuers.

67 SHIP STREET, BRIGHTON.

Inclusive terms to Vendors. No extras whatever. Businesses £1,000 and upwards transferred at special rates.

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LANCS. (Fol. 975).—Returns nearly £570; low rent; same hands over 30 years; owner retiring; price £470.

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WILTS (Fol. 965).—Very old-established Country Mixed Business; returns over £1,200; low rent on lease; price £800.

WARWICK (Fol. 973).—Dispensing and Prescribing business; double-fronted Pharmacy; rent £25; suitable for beginner; price £65, of which £30 can remain.

NO CHARGE TO PURCHASERS.

CROCKER & CO.

SOLE PROPRIETORS—

Mr. WILLIAM JUDD and Mr. ALFRED MANNERS,

Trade Valuers, Transfer Agents, and Accountants,

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NO CHARGE IS MADE UNLESS A SALE IS EFFECTED.

MAIN ROAD, LONDON, N.—Death vacancy; an old established Business; much neglected; now doing £400; price £320; the stock and fixtures are worth all the money.

SEASIDE (Fashionable Health Resort).—First-class Retail and Dispensing Business; returns £1,245; rapidly increasing; satisfactory reasons for selling; price £1,200, or valuation terms can be arranged; 10-roomed house and handsome pharmacy.

KENT.—Near London; a neglected Cash Retail and Prescribing trade; returns £7 weekly; formerly did £16; ill-health cause of sale; price £250.

MIDLANDS.—Old-established Retail and Dispensing trade; in same hands many years; for sale through death of proprietor; returns £1,500; price £1,000.

WILTS.—Old-established good-class country Business; returns over £1,200; rent £30; price £800; full prices, except patents.

BIRMINGHAM.—Light Dispensing and Family Business, established 40 years; well fitted; returning £375; rent £55; price valuation.

CHESHIRE.—An old-established Retail and Dispensing Business, returning £1,030; price £800, or valuation; strongly recommended.

WEST OF ENGLAND.—Cash Retail and Dispensing; returns £1,300 under a Manager; price £650; we strongly recommend this as a sound and promising investment.

LONDON (West End).—Main thoroughfare; returns £350; much neglected; price £350, only the value of the Stock and Fixtures.

WEST END DISPENSING BUSINESS.—Good-class Dispensing and Light Retail Trade; returns £900; price £800.

NO CHARGE TO PURCHASERS.

THOMAS TOMLINSON & SON

Chemists' Consultants, Transfer Agents, and Valuers,

9 NEW CANNON ST., MANCHESTER.

Forty-four years' experience, during which period they have transferred, valued, or arbitrated from 800 to 1,000 Businesses.

They have now for disposal at Blackburn, Crewe, Huddersfield, Preston, Manchester (2), Liverpool (2), Bradford (2), Derby (2), Hebden Bridge, Hyde, St. Helens, Lincolnshire (market town), Oldham, Normanton, Accrington, Potteries, Sheffield, Warrington, Bury, Redditch, Wiekham Market, Newton Abbott, Ladiana, &c., &c.

Please state requirements and capital, when candid opinions as to adaptability will be given without charge.

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FOR immediate disposal, in country town in Suffolk, a very old-established Business in good working order, with increasing returns amounting now to about £600.

For terms and particulars apply to

GRIMWADE, RIDLEY & CO.
WHOLESALE DRUGGISTS & VALUERS,
IPSWICH.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

CHEMIST'S Business for sale; old-established; taking £450 under management; good ready-money trade; owner going abroad; price £350. 143 Hoxton Street, Hoxton, London, N.

IRELAND.—An old-established Medical Hall; returns under manager, about £700; rent £45; lease over 30 years; extensive premises. Address, "Ireland," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL—Cont.

BRIGHTON.—An old-established Family Chemist's Business for disposal in good position; rent, on lease, £55; price, all at, £350. Fox, Agent, Edenbridge, Kent.

CHEMIST'S Business, Old Street, St. Luke's, E.C., for immediate disposal; lease at moderate rent; stock and fixtures at low valuation. Apply to W. B. & S., 81 Page Street, Westminster, S.W.

LIVERPOOL Suburbs.—A small old-established Retail and Dispensing Business to be disposed of (Post Office); growing neighbourhood; good opening for Dentistry. Apply, A. B., c/o Messrs. Evans, Sons & Co., Hanover Street, Liverpool.

A RETAIL and Dispensing Business; first-class position; main road, N.W.; good reason for leaving; long lease and low rent; shop well stocked, and the whole premises in good condition. Address, C., 46 High Street, Peckham, S.E.

TO be sold—leading watering-place—Chemist's and Druggist's Business; established nearly a century; same hands 25 years; full prices; owner retiring; lease, stock, and goodwill £350; no agents. Write for particulars, H., 8 St. Paul's Studios, West Kensington.

TO be sold, an old-established Drug and Dispensing Business; with or without the freehold of the premises; in one of the main thoroughfares of Plymouth; corner shop; modern fittings; immediate possession. Apply by letter to 102 Old Town Street, Plymouth.

NOTTINGHAM.—For sale, Chemist's Business; genuine going concern; returns over £800; no booking; large stock, well-fitted shop; price £700; payments part cash and balance by instalments. Apply, Thacker, Chemist, Nottingham. Favourable lease, 19 years.

SUBURBAN Dispensing and Retail, with large Prescribing; smart pharmacy; growing business and neighbourhood; good house; lease, &c.; price £600; returns at £1000. Mr. Boyes, c/o Baiss Bros., Jewry Street. Letters only, and no curiosity replies, please.

SUSSEX, on the borders of Kent; Mixed Country Business; returns nearly £1000; same hands 26 years; price £700; every opportunity for investigation given after interchange of references. "Alpha," c/o Hearon, Squire & Francis, 38 Southwark Street, London, S.E.

LIGHT Retail, Dispensing, and Photographic Goods Dealer's Business for Sale at a valuation; about £700; large double-fronted and well-fitted shop and 8-roomed house with all modern conveniences; in central and best position in town; returns £1,200; working expenses £160. Jackson, 55 Fishergate, Preston.

LONDON, N.; for immediate disposal, genuine Retail and Dispensing Business; good house and shop with small garden; rent 45s. on lease; returns last year under management, 530s.; part of purchase money could remain; price 350s., or open to cash offer. Apply, 233/26, Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£250.—**SOUTH WALES.**—Small watering-place; returns (increasing) £400, at good profits; convenient premises and garden; rent £16; Photography and other auxiliaries could be added with a little capital; good stock and fixtures. Apply, "Coea," Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

DEATH vacancy; established 1883; has done £11 weekly; stock reduced; good house; populous neighbourhood; rent £20; price £100; also good Branch; well-stocked, modern fittings; established 1887; doing £7 weekly under management; good house; bath; owner taken larger business; price £200. Apply, Mr. Sanders, 19 Vicar Lane, Leeds.

LANCASHIRE.—Old-established Light Retail, Dispensing, Prescribing, Proprietaries; lease; well fitted and stocked; average net profit about £350, owner did far better when able to take active part in business; energetic attentive business man cannot fail to do well; terms arranged. "Tender," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NORTH Lancashire; Light profitable Retail and Prescribing Business; no heavy trade; handsome shop; returns about 500s.; nett profit about 200s.; can be largely increased by an energetic man; fullest investigation allowed to bona-fide buyer; splendid opening for Dentistry; price about £400. 212/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£100 or reasonable offer will secure newly-fitted shop with complete stock in good town on the South Coast; nucleus of good Stores Business; rent 7s. 6d. a week for shop, back room, and kitchen; includes rates, taxes, and water; rent free to end of March; satisfactory reasons for selling. South, c/o Wright, Layman & Umney, Southwark Street, London.

£250. cash down, only; worth £400; Bristol suburbs; genuine Dispensing, Light Retail Pharmacy; beautifully fitted; returning £12 weekly; capable of much increase; good sale for own Proprietaries and Horse and Cattle Medicines with very profitable Prescribing; fortune to young energetic man; superior 10-roomed house; large double-fronted shop; rent £40. Address, Smith, Chemist, Medical Hall, 135 Lawrence Hill, Bristol, N.B.—Only cash purchasers need apply, and the lowest price is £250.

25 Miles from London, on main line L. B. & S. C. Railway; returns £10 weekly, with scope for development; well-fitted retail dispensing and prescribing Business; satisfactory reasons for leaving; price £350. G. G., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMPERATIVE Sale.—Light Retail and Dispensing Business in good London suburb; superior shop and house; returns under principal over £500, now £300; price, valuation or cash offer. "Lincoln," *Pharmaceutical Journal* Office, 5 Serle Street, Lincoln's Inn, London, W.C.

IN a rapidly increasing district, near Bristol, a genuine old-established Dispensing and Retail Business, capable of great extension; in same hands 35 years; illness sole cause of disposal; no opposition within one mile radius; returns £500; price £500. "Euonymin," c/o A. & J. Warren, Bristol.

SMALL growing Branch; only wants viewing to sell; nicely-fitted shop, well stocked; 8,000 population round shop; no other Chemist within 1 mile; returning under youth £4, principal could double at once; trial allowed; rent only £16, including taxes. Address, Fuller, 184 Dalston Lane, London.

WELL-ESTABLISHED Business in market town, Yorks, principally Light Retail; central position; satisfactory reason for leaving; will take £500 cash, worth considerably more; valuation if preferred. Address, 223/15, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

COUNTRY Wholesale Business; Returns, £3,100, yielding a net income of £600 per annum; capital premises, in best part of town; suitable for the addition of a Retail branch if desired. Terms and further particulars from "Ceteenm," *Pharmaceutical Journal* Office, 5 Serle Street, Lincoln's Inn, London, E.C.

WHOLESALE Business, with small Retail, in the Eastern Counties; very old-established, and producing a net profit of £600 yearly; cash required to purchase, about £1,800; valuation terms can be arranged. For further particulars apply "Wholesale," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MARKET Town; 40 miles from London; no opposition for some miles; returns £1,005, net profit £408, after paying rent, taxes, gas, and all expenses; good house, garden in rear; price £750; stock and fixtures worth over £600; investigation courted. T. P. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

I AM looking out for an enterprising, energetic young gentleman to succeed me in my business (Chemist's); in same hands over 30 years; within three minutes of railway station, docks and market, in main artery of town; incoming moderate; roomy shop and comfortable house. Address, J. T. R., 19 Bernard Street, Southampton.

HANDSOME Pharmacy; well stocked; returning under very indifferent management nearly £1,000; principal who could give it undivided attention could get £1,500 immediately; proprietor, having other business, cannot give it the attention it requires; large house; 30 miles out; references exchanged. Address, "Auranter," Horncastle's, Cheapside, London, E.C.

CHEMIST'S and Dentist's Business for immediate disposal; well-fitted shop; good house, ten rooms and garden; very low rent; very satisfactory reasons given; no reasonable offer refused; price £90, but well worth £130; good stock of drugs; suit also medical man; very populous neighbourhood. "Pharmacist," care of Messrs. Pigott, grocers, 9 High Street, Wood Green.

FOR SALE.

DRUGGISTS' FITTINGS.—Complete Fittings (mahogany-faced) of large shop; cases, drawers, desk, counter; bottles; specie jars, carboys (all large and handsome), &c. Apply for cards to view between 12 noon and 6 p.m. Address "Brand," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

APPRENTICESHIPS.

APPRENTICE; Two Wanted; one for a Country Business about an hour from Town, the other in a nice Suburban Pharmacy; good homes; time for study, &c.; moderate premium; references to former pupils, medical men, &c.; time for attending lectures could be arranged. Address, "Antipyrin," Quetchs, 4 Ludgate Square, London, E.C.

PARTNERSHIPS.

WANTED, an active young man as Partner, to take charge (by arrangement) of a Business doing from £500 to £600 yearly; almost entirely small trade; ample scope for doing an extensive business; or a good Assistant with a view to Partnership. 237/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNER wanted, able to invest £200, to Manage a Business in Lancashire, doing a medium-class Cash trade of over £1,200 per annum; a suitable salary will be paid for services and a proportionate share in the profits; references must be thoroughly reliable. Address, 212/40 Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

WANTED, to purchase a small Wholesale and Manufacturing Business in or near London. Apply 230, 11, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WILL any Chemist in London, wishing to part with a first-class Retail and Dispensing Business, with residence, returning from £1,200 to £1,800, communicate with E., c/o Messrs. Meggeson & Co., 14 Miles Lane, E.C.

WANTED at once, a Light Retail and Dispensing Business, with good house, returning about £10 weekly (capable of increase). Kindly state full particulars in confidence to Morris, c/o Driffield, Spilsby, Lincolnshire.

WANTED, small Wholesale Drug, Drysaltery, Manufacturing, or Sundries business; one which can be extended; suitable for beginner; North Midlands preferred; give full particulars. "Iota," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a genuine good-class Dispensing and Retail Business in the Western or Midland counties (Birmingham or district preferred), which can bear strictest investigation. State particulars as to returns, lease, &c., to P. J. A., 3 Chapel Street, Stratford-on-Avon.

ADVERTISER, with moderate capital, wishes to Purchase small Business with sound connection, or would accept engagement with view to early succession. Apply, with full particulars, which will be received in confidence, to W. H. Smith, 6 Broad Street, Hereford.

WANTED, immediately (Lincoln, Nottingham, or Home counties preferred), Light Retail and Prescribing Business in large village or small country town, with good house and garden attached; incoming not to exceed £500. Apply, E. Tunmer, 44 New York Terrace, York.

WANTED, a Business returning between £600 and £800 yearly; Yorkshire or other Northern County preferred, but not essential; purchase, part cash, part to remain at interest for a short period. Full particulars, with reason for sale, in confidence, to Knowles, Chemist, 58 Westgate, Cleckheaton.

LIGHT Retail and Dispensing Business wanted at once, giving a nett profit of about 400*l.* a year; advertiser would be pleased to hear from any gentleman desirous of selling his business; there must be a good house, and in a bracing locality. "Nostrum," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a good-class Dispensing and Light Retail Business, with net profit of £300 or £400 a year; must have a good residence; West of England or South Coast preferred. Address, with full particulars and reasons for sale (which shall be received in confidence), "Claremont," c/o Messrs. Wright, Layman, & Umney, 50 Southwark Street, S.E.

SITUATIONS OPEN.

3*s.* 6*d.* for 50 words; 6*d.* for every 10 words beyond.

IMPROVER for Light Retail and Dispensing; time for study; comfortable home. W. Dawson, Chemist, Slough.

WANTED, an Assistant; indoors. State age, height, salary, and when disengaged, Williams Brothers, Hereford.

LADY Assistant, registered, wanted. State age, experience, and salary required, to Mrs. Anna Ruppert, 89 Regent Street, London, W.

FOR Branch recently opened, good Prescriber; outdoors; nice hours; half-day holiday; at once. Hollingworth, Pharmacist, Stainland.

GOOD Junior wanted for Dispensing business (indoors). Apply A. H. E. Ithorne, 8 York Place, Ball's Road, Birkenhead.

WANTED, on February 1, qualified Assistant; outdoors. State age, salary required, and reference to Mr. E. G. Hayter, Wimborne, Dorset.

WANTED, Junior Assistant, in good-class Mixed Country business; outdoors; no Sunday duty. Usual particulars to Townsend, Long Sutton, Lincs.

WANTED, an energetic Junior Assistant, for Wet Counter, by Wholesale Drug House. Apply, with full particulars, to P. O. Box 159, Newcastle-on-Tyne.

IMMEDIATELY, two Assistants, indoors; Senior, qualified, 26 or 27; Junior, 23 or 24; must write well and be well recommended. G. J. Knight, 452 Edgware Road.

WANTED, an Assistant; first-class Dispensing business; outdoors; knowledge of Photography preferred. Full particulars to F. Crossley, Chemist, Buxton.

ASSISTANT wanted for good Dispensing business; indoors. State usual particulars and enclose photo, J. Phillips & Son, Pharmaceutical Chemists, Newport, Mon.

WANTED, Town Traveller, calling upon Wholesale Chemists and Drysaltery; commission only. 31, 30, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED Assistant (indoors); age about 23; good Dispenser, and accustomed to first-class business. Apply, personally, if possible, to V. L. Fells, 49 Hertford Street, Mayfair, W.

JUNIOR wanted immediately; indoors; of good address, active and obliging; salary £25. Apply, enclosing c.v. and giving full particulars, to Smart, Pharmaceutical Chemist, Steyning.

CRUSE & CO., Southsea, require by the end of the month a qualified Assistant about 24, accustomed to a good-class business. Apply, enclosing photo (if possible), with full particulars.

WANTED, qualified man to take charge; one with some knowledge of Post Office work preferred. Apply, by letter, to Taylor & Boyd, Custom House Station, Victoria Docks, E.

A QUALIFIED Assistant, and having had fair experience. Address, particulars (with photo if convenient), and salary required (indoors), A. H. Briggs, Apothecaries' Hall, Liverpool.

WANTED, Junior Assistant, aged about 21; must have a knowledge of the Welsh language. Apply to W. Ll., 26 High Street, Carnarvon, North Wales.

FOR a good-class business at a favorite health-resort, an Improver or Junior. All particulars to Mackereth, The Grange Pharmacy, Grange-over-Sands.

QUALIFIED Assistant; outdoors; not under 25 years of age; accustomed to London business; Apply by letter, stating age, height, and qualifications, to H., 12 Pembroke Road, London, W.

JUNIOR wanted, immediately; indoors, accustomed to the general routine of a good-class Country and Agricultural trade. State salary and references to B. Humble, Chemist, Abergavenny, Mon.

JUNIOR wanted, immediately (Indoors), in Dispensing and Light Retail business. Apply, stating age, height, and salary required, to "Chemist," 21 Formosa Street, Maida Vale, London, W.

LIVERPOOL Hospital for Women.—Wanted, a Lady Dispenser; she must be a Trained Nurse or desirous of being trained; vacancies for Probationers, age 22 to 33. Address, Lady Superintendent.

WANTED, an Indoor Assistant (qualified) by the first week in February; good Counterman and obliging. State age, salary, and experience to "Chemist," 93 Kingston Road, Wimbledon.

GILES, SCHACHT & CO., Clifton, require a Junior, chiefly for Laboratory work; an apprentice from a good country business preferred; indoors; salary first year £30. State full particulars.

WANTED, a Junior Assistant about 22 years old, with Minor qualification; about 5 ft. 9 in. in height. Apply (enclosing photo), stating salary and full particulars, to Glaisyer & Kemp, Brighton.

WANTED, an Assistant to take charge of a Branch; Minor qualification. Apply, stating age, height, and salary required, also send photo (which will be returned), to G. R. Dawson, High Street, Southend-on-Sea.

WANTED, by a Medical Man, a non-resident Dispenser and Book-keeper (Chemist preferred); work light; no club or union; state terms; must be a total abstainer. Apply, Rowland, Pier House, Aberystwyth.

WESTGATE-ON-SEA.—Middle of February; a gentlemanly Junior or High-class Dispensing; qualified preferred; good references indispensable. State height, references, and enclose c.v. to F. R. Bessant, Pharm. Chem.

WANTED, immediately, qualified Assistant, quick and accurate Dispenser, and good Counterman, for good-class business; indoors. Apply, enclosing full particulars and photo (to be returned), to G. Brooke, Chemist, Llandudno.

WANTED, qualified Assistant as Dispenser, and to assist at front counter (outdoors); hours short. Apply, stating age, salary required, references, and full particulars, with photo, to Heaton & Squire, Chemists, 39 Robertson Street, Hastings.

WANTED, an Assistant, active and obliging, for a good Retail business; indoors; single; apply, stating age, experience and salary; applications not answered in three days respectfully declined. James Stevens, Chemist, Strood, near Rochester.

ASSISTANT wanted (indoors) for a good-class Dispensing business; age about 24 or 25; of good address. Apply personally, or by letter with full particulars, enclosing photo (will be returned), to Foster Blades, 10 Gloucester Road, South Kensington, S.W.

WANTED a qualified Senior about 30, Chemist: who has had experience in first-class, quick, Family and Dispensing businesses; one who has a technical knowledge of Photography preferred. Give usual particulars, enclosing photo (to be returned). Address, "Radolph," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN—Cont.

WANTED. Junior, or one who has served part time; outdoors. Address, "Chemist," Exchange Club, Halifax.

JUNIOR Assistant wanted; outdoors; on useful store trade, with knowledge of photography required. Apply, Brooks' Drug Stores, Broadway, Deptford.

SENIOR and Junior required for a brisk Cash business; the usual early evening each week, and half-holiday every month; Sunday duty every fourth Sunday. Full particulars as to salary required, &c., by letter only to W., 50 Lorne Road, Stron Green, N.

WANTED, for Good-class Drug Stores, London, W., unqualified Assistant; about 25; well up in all-round work and used to store trade; active, obliging, and good counterman; good references essential. Apply, giving usual particulars, to D., c/o Messrs. Sanger and Sons, Winsley St., W.

WANTED, Qualified Assistant, age about 24 to 23; outdoor; for General Retail and Prescribing; small town; short hours; send references, photo, and state salary required; letter not answered in 4 days declined. 236/29, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, by 1st February (or about), Junior or Improver, with time for study, one evening weekly; train for Wills's, &c., pass door; comfortable home; fair opportunities for gaining experience; state age, height, salary, and send photo (to be returned), Nettle, Pharmaceutical Chemist, Upper Tooting.

WANTED, a thoroughly competent man calling on Wholesale and Manufacturing Chemists, to sell pepsine and extract in bulk for one of the largest American packers; on commission. Address, "Pepsine," c/o Lee & Nightingale, Advertising Agents, Liverpool.

WANTED, for a good-class Retail and Dispensing business, a qualified Assistant; indoors; age about 22; Dispensing experience essential. Apply, stating salary, height, &c. and enclosing carte (to be returned), to T. Woodruff, Pharmaceutical Chemist, 43 Lapwing Lane, Withington, Manchester.

WANTED, respectable sharp youth as indoor apprentice; small premium only required; in select Country business; no heavy trade; small and exceedingly pretty Gloucestershire town; or would treat with Junior or Improver wanting time for study. Philpotts, Family Chemist, Newnham-on-Severn.

WANTED for a good-class business in a manufacturing town, a qualified gentlemanly Assistant, with good references, about 23 years of age; a quick and accurate Dispenser; salary 60*l.* (indoors). Apply, with full particulars, to G. W., c/o Messrs. Davy, Yates & Routledge, 64 Park Street, Southwark, London, S.E.

MR. PHILLIPS, Pharmacist, Ealing, W., requires a Junior Minor Assistant; outdoors; one accustomed to a good-class Dispensing business, and having preferably some knowledge of Homoeopathy and Photography; personal application desirable, but applicants by letter should state age, height, experience, terms, references, and enclose carte.

BRANCH MANAGER wanted for first-class Dispensing and Retail in West of England, immediately; unmarried; comfortable home and good berth offered; references must be perfectly satisfactory; a suitable gentleman would be appreciated. Address, "Permanency," Messrs. Meggeson & Co., Miles Lane, E.C.

MARRIED Assistant for the North of England; applicant must possess knowledge of Photographic trade, and be well up in Dispensing; free house and gas provided. Apply, with full particulars as to age, experience, salary required, &c., to 230/21, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A QUALIFIED Assistant, age 24 to 30 years, indoors, to manage Branch; steady gentlemanly fellow, able to Extract Teeth and Prescribe preferred; Sunday duty about two hours every third Sunday evening at head shop; salary £50. Apply, stating reference, to Hugh Fairhurst & Co., 24 Horse Market Street, Warrington.

JESSE WILLIAMS & CO., Chemists, Park Hall Buildings, Cardiff, want early in February, a competent qualified Dispenser; outdoors; hours, 8.30 to 9; Saturdays to 10.30; close Wednesdays at 5 p.m.; Sunday duty 7.30 to 9 p.m. about once a month. To save time please send full particulars of wages, experience, &c., and copies only of testimonials.

MANAGER, Dispenser, and Counterman, qualified, required by about middle of February; all outdoors; none but those accustomed to first-class and quick Store trade need apply, and with unexceptionable references; one whole day off every week, and no Sunday duty. Apply, by letter in first instance, stating full particulars, to 230/29, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Assistant Manager, to reside on, and take charge of, business premises; single; good experience in Mixed Agricultural business; essential; must be a good Salesman and obliging to customers; permanency to suitable man. Apply, with full particulars, salary required, and enclosing photo, to "Business," c/o Messrs. Hodgkinson, 101 Whitecross Street.

SITUATIONS WANTED.

1*s.* for 12 words; 6*d.* for every 6 words beyond.

MANAGER or Locum-Tenens; registered. D., 1 Talbot Road, Isleworth.

JUNIOR; 20; tall; good experience; February 10. Marfitt, 14 Bond Street, Leicester.

JUNIOR or Part-time; London; 22. Carr, 49 Chippenham Road, Elgin Avenue, W.

ASSISTANT, Manager; 27; experienced; references. Airey, 10 Devon Street, Bury, Lancs.

AT once, part-time with Chemist or Surgeon; abstainer; 24. J., 62 Lambeth Road, S.E.

TRAVELLER for Wholesale Druggist. Slyn, New Manor House, Moseley, Birmingham.

TEMPORARY engagement required by experienced Assistant. Fisher, Church Street, Holt, Norfolk.

MANAGER, Assistant; 23; 8 years' experience; Minor. Roper, 7 Lower Hillgate, Stockport.

ASSISTANT; time for study; London experience; London preferred. Robey, 21 Church Road, Lowestoft.

LOCUM-TENENS, Branch Manager, or Assistant; qualified. P. D., 30 St. James's Street, Nottingham.

JUNIOR; 22; indoors; London, Manchester, or Liverpool; West-end experience. John Gibson, Hexham.

IMPROVER; 20; Homoeopathic; 4 years' experience; good references. Mount Pleasant, Downham, Norfolk.

MANAGER or Senior; London; qualified; or Locum. "Chemist," 22 Fordingley Road, Paddington.

WHOLESALE. Wet; 4½ years' last situation; good references. Downes, 30 Fairfax Street, York.

MANAGER; qualified; view to succession. "Bjax," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS or permanency; experienced; 29; 5 ft. 8½ in. "Minor," 88 Lower King Street, Norwich.

JUNIOR; 21; references; Lancashire preferred; outdoors or indoors. A. Walker, 9 Holland Street, Blackburn.

ASSISTANT; outdoors; aged 26; experienced; satisfactory testimonials. W., 17 Ramsden Terrace, Leeds.

MANAGER; good Counterman or Dispenser; qualified; experienced; references. "Chemist," 22 Laurel Grove, Penge.

MANAGER; 33*s.* weekly (Assistantship, 30*s.*); qualified; 51; married. 36 Wrexham Fichau, Wrexham.

OCCASIONAL duty required, either day or evening; experienced. "Statim," 52 Ashmore Road, Paddington, W.

PHARMACEUTICAL Student requires part-time; good Dispensing; S.W. or W. B., Royal Pimlico Dispensary, S.W.

ASSISTANT; 6 years' experience; Extractor and Prescriber; Midlands preferred. "Extractor," 46 Winslade Road, N.E.

SURGEON'S Dispenser; outdoors; experienced; highest references. J. T., 110 Devonport Road, Shepherd's Bush, W.

ASSISTANT; aged 25; 11 years' experience; tall; London; time for study. H. Rendle, 56 Albert Road, Devonport.

MANAGER (permanent or temporary) by experienced Pharmaceutical Chemist; exam. Heald, Newquay, Cornwall.

PART-TIME. London; to attend lectures; good references; 4½ years' experience. Eastland, Elm Road, Wisbech.

AS Assistant, in April; outdoors; married; aged 26. 229/4, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR, 3 years' good Dispensing and general experience; good reference; London or suburbs preferred. S. Street, Littleport, Cambs.

SITUATIONS WANTED—Cont.

- JUNIOR**; five years' first-class experience; Manchester preferred. 35 Moses Gate, Bolton.
- AS** Wet, Dry, or Export Counterman; age 30; good references. R. B., 103 Clifton Street, E.C.
- ASSISTANT**; 23; disengaged; good all-round experience. Fletcher, Black Horse Yard, Whitby.
- QUALIFIED** Assistant; good Dispenser in first-class business. Camm, Lower Comberton, Kidderminster.
- ASSISTANT**; Wholesale or Retail; 28; married. E. H., 45 Paiguton Road, Stamford Hill, N.W.
- JUNIOR**; 20; abstainer; 4 years' experience; good reference. Holbrook, Chapel Street, Penzance.
- ASSISTANT**; 25; good reference; disengaged. "Pyro," c/o Mr. Fisher, Market Hall, Chesterfield.
- JUNIOR**; 24; outdoors; London or near; first-class experience. "Opus," 5 Roxwell Road, Shepherd's Bush, W.
- QUALIFIED** Assistant; 29; outdoors; town preferred; good references. B., 857 Fulham Road, S.W.
- JUNIOR**; 21; 4½ years' experience Light Dispensing; excellent references. B., 2 Parliament Street, York.
- ASSISTANT**; 24; unqualified; outdoors; excellent reference. Thetford, Worcester Street, Stourbridge.
- JUNIOR**; 21; 6 years' experience; extractor; in- or out-doors. 24 Chichele Road, Cricklewood, N.W.
- TEMPORARY**; qualified; age 28; disengaged three days a week. Freeman, 13 Brunswick Square, W.C.
- ASSISTANT** or Manager; view to succession; age 23; married; qualified. "Menthol," 2 Howard Street, Salford.
- WAREHOUSEMAN**; long service with Chemist; good character; abstainer. "Saxton," Grove Lane, Retford.
- WHOLESALE**; experienced Assistant; can take charge; highest references. B., 3 Edward Street, City Road.
- TEMPORARY** or otherwise, Chemist and Dentist, disengaged; good Prescriber, &c. W., 54 Gladstone Street, Southwark.
- BRANCH** Manager; 30; in town; view to succession or otherwise; qualified; good references. W., 857 Fulham Road, S.W.
- ASSISTANT** or Manager; experienced; 27; qualified; London; outdoors preferred. O. K., 12 James Street, Paddington.
- ASSISTANT**; 23; good Counterman; outdoors; disengaged; 12 years' experience. M., c/o Evans, Gaid & Co., Exeter.
- OUTDOORS**; aged 32; Minor; abstainer; good reference; £2 weekly. A., 184 Oldham Road, Newton Heath, Manchester.
- JUNIOR**; 22; Part-time; 7 years' experience; good references; disengaged February 1. Reed, 41 Nightingale Lane, Balham, S.W.
- WHOLESALE**; Export dispatch Clerk seeks engagement; 6 years' experience; good references; aged 23. "Export," 73 Leuthall Road, Dalston.
- ASSISTANT**; disengaged; height, 5 ft. 9 in.; aged 31; speaks French; knowledge of Photography. C., 20 Westbourne Park Crescent, Bayswater.
- AS** Junior or Dispenser to Surgeon; 21; height 5 ft. 8 in.; 6 years' experience; London or suburbs only. Gleed, 4 Ferne Park Road, Stroud Green, N.
- JUNIOR**; 21; disengaged; abstainer; nearly 4½ years' experience; first-class Dispensing and Retail business. F. H. Stockbridge, Bawell, Weston-super-Mare.
- ASSISTANT** or Dispenser; good experience; quiet Cash business preferred; permanency; unqualified; outdoors. W., c/o Chemist, Wandsworth Bridge Road, Fulham.
- OUTDOORS** (qualified); 24; West-end and South Coast experience; Dispenser or Counterman. "Primo," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
- YOUNG** Gentleman wishes Situation as Traveller or Agent for English Firm in Scotland. "Presto," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

- WANTED**, situation in Wholesale, or as Traveller; aged 25; 9 years, good Retail experience. C. H. Tily, Riverhead, Kent.
- ASSISTANT**, with 5 years' experience; passed Prelim.; aged 22 years; height 5 ft. 7 in. Apply, Gordon, 101 Victoria Road, Dantee.
- AS** Junior, in good-class business; 4 years' experience; aged 20; height 5 ft. 8 in. "Barbadoes," Llauvair Lodge, South Ascot, Berks.
- QUALIFIED**; 22; first-class Dispensing experience; good knowledge of Photography. "Phenazone," 4 St. James's Street, Warrington.
- CHEMIST'S** Assistant wants engagement for about 2 hours every evening; at liberty at once. Woor, 124 Fifth Avenue, Queen's Park, W.
- WHOLESALE** or outdoor Retail; unqualified; long experience; accustomed to manage. "Drugs," 17 Plum Street, Seaforth, Laues.
- ASSISTANT**; 23; good-class business; London preferred; good experience; disengaged. J. P., c/o Dr. Wiles, Bowes Park, London, N.
- TO CHEMISTS** and Pill-makers; evening work wanted by experienced man in Pill-making, Coating or Gelatining "Chemist," 82 Crownhill Road.
- REPRESENTATIVE** Minor qualification, seeks engagement; North or Midland counties preferred. Apply, W. A. W., Post Office, Naburn, near York.
- IN** Stores, as Salesman, or any post in same; 5 years Manager to Chemist; first-class references; disengaged. "Manager," 48 Tottenham Court Road, W.
- SITUATION** wanted; aged 25; thoroughly conversant with Patents, Sundries, &c.; good references; London only. W., 63 Lausanne Road, Hornsey.
- ASSISTANT**; 21; good-class Retail or Dispensing; height 5 ft. 9 in.; abstainer; Liverpool district preferred. Cooke, The Crescent, West Kirby, Cheshire.
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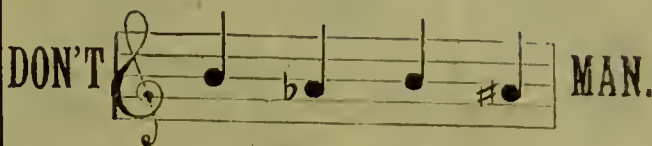
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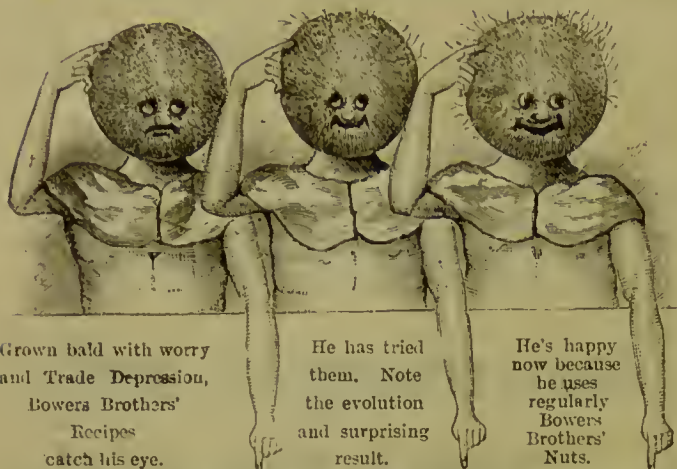
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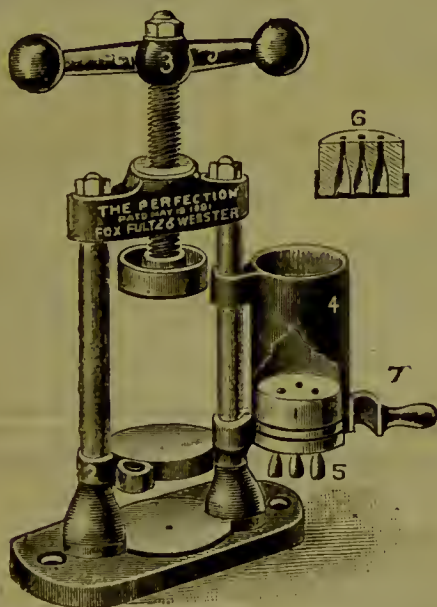
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Pharmaceutical Journal posted day received; what offers? Bancroft, Kineton, Warwick.
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 Spoon's "Encyclopædia of Arts and Manufactures," vols. i. and ii., 40s.; cost 70s. Berdoe, 30 Jewry Street, Aldgate.

Formulas.

For sale, 130 well-tryed recipes, neatly copied in book, post, 1s. 6d. Tully, Chemist, Hastings.
 Reliable, practical and useful recipes (16th year).—Tom Brooks still offers above. Following are good examples:—Quinine and iron tonic; white oils; tic specific; glycerine cream; liver pills; occasional pills (for ladies); gout-mixture; rheumatic pills; digestive relish; corn-cure; influenza mixture; catarrh pungent; whooping-cough cure; instant-cure toothache; mist. gonorrhœa; gravel pills; blood-cleanser; gripe syrup; hair-restorer; lime and glycerine; brush polish; chilblain cure; ringworm specific; deafness essence; foamy dentifrice; furniture-cream; rheumatic embrocation; blood powder; tonic star lotion; cherry tooth-paste; depurative saline; transparent cement; pill-coating, &c.; soothing syrup; pill powders; worm syrup; brilliantines; pig powders; chlorodyne; itch ointment; tannin gargle; brass paste; freckle lotion; vermin killer; French polish; cold cure; phosphor paste; hair extract; digestive syrup; glycerine and liquorice balm; skin pills; walnut pomade; ung. eczema; mist. occasional fat (for ladies). Recipes, 1s. 1d. each, 6 for 5s., 25 for 1l., with full directions and instructions, post free. Send for additional list, Tom Brooks, Chemist, Hornsey, London, N.

Drugs and Chemicals.

Four gallons aqua rose, 6½ lb.; 1 lb. caffeine, 7s. 6d. 231/1, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
 Thirty lbs. gum arabic, 15s.; 20 lbs. eucalyptus oil, 40s.; 1 lb. pyrogallie acid, 10s.; 90 lbs. albo-carbon, 5s. Call Berdoe, 30 Jewry Street, Aldgate.

Shop Fittings.

Counter-case, bent plate glass, 6 ft. long, 5l. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.
 Lamp for sale; three bull's-eye; nearly new; cost, with bracket, 8l.; offers. J. Searr, Chemist, Littleborough.
 One pair 4-gallon carboys, with cut-glass stoppers, 1l. each; offers. H., 11 Grey Street, Newcastle-on-Tyne.
 Counters, mahogany, with plate-glass doors in front, 12 ft. long, 10l.; another 10 ft. long, 8l. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.
 Glass wall-cases, one 10 ft., 12l. 10s.; another 4 ft. 4 in. long, mahogany and plate glass, 5l. 5s.; and several others. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.
 Carboys.—What offers for two or four perfect 6-gallon swan-neck carboys, with cut stoppers (York Glass Company), together with mahogany stands fitted with brass wheels for tramway? 229/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
 For sale, bent plate-glass counter-case, in good condition, length 37 in., depth 15 in., height 10 in.; also one 6-gallon and one 4-gallon pear-shaped carboy, cut stoppers; what offers? 228/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.
 Drawers, 16 ft. run, with bevelled-edged glass labels and glass knobs, shelving with pilasters and cornice over, plate-glass case at each end, and mirror poison-cupboard in centre, a very handsome fitting, price 25l. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Dispensing-screco, mirror centre, 7 ft. long, 7l. 10s.; another to match, 5 ft. long, 6l. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Miscellaneous.

What offers, cash or exchange?—Pindar's pill machine and piping press for 4 gr.; half-plate (new) camera, with 3 double backs, no lens or stand. Atherton, Chemist, Wigan.
 Fifteen gross round harness-paste ting, 2½ in. diameter, 1 in. deep; three gross ditto, 2½ in. by 2 in.; unused; suitable many purposes; 2s. 6d. and 3s. gross respectively. Kemp, Horncastle.
 Inguinal trusses (Maw's).—To be sold in one lot, at 20 per cent. off cost (21s.), about 16 doz., viz.:—Basil and chamois, No. 5 in catalogue: 1 30, 2/31, 3/32, 5/33, 2/34, 3/35, 5/36, 1 38, 2 39, 4 40—right; 1 30, 4/31, 13/32, 3/33, 5 34, 2/35, 4/36, 5/37, 3/33, 1/39—left; 2 30, 1 31, 3 32, 2 33, 3/35, 2/33, 1/37, 2/38, 2/40—double. Red roan best trusses, cost 34s. doz.: 1 38, 1 39, 1/40—right; 1/37, 1/38, 1/40, 1 43—left. With the exception of 3 or 4 slightly soiled by dust, these are all good as new, being renewals of stock from time to time; reason for sale, declining this branch of the business. W. P. Lawrence Pharmaceutical Chemist, Market Place, Knaresborough.

WANTED.

Wills' "Elements Pharmacy." Percy Longley, North Street, Leeds.
 Microscope, second-hand, in good condition; also botanical slides. Puckrin, Chemist, Whithy. Atfield's "Chemistry." Edition and price to W. G. B., 25 Lower William Street, St. John's Wood.

Addresses Wanted.

The address of Mr. John Harrington, late of West Kensington, London. Cullingford, 76 Mount Ephraim, Tynbridge Wells.
 Chemists knowing the address of Mr. C. E. Greville, Chemist's Assistant, are desired to communicate with Mr. Watson, Chemist, Angel Street, Sheffield.

✱ **SHOP FITTERS,**
SHOWCASE
MAKERS.

✱ **NATALI & CO.**

40 GRAY'S INN ROAD, HOLBORN,
 LONDON, W.C.

CHEMISTS' SHOP-FITTINGS, SHOWCASES, AND UTENSILS
 OF ALL DESCRIPTIONS, NEW AND SECOND-HAND

Chemists commencing, opening Branches, or making alterations, can be fitted throughout immediately, and save 25 per cent. by purchasing from our extensive stock.

SPECIAL JOB LINES ON VIEW THIS WEEK.
 Showcases, Dispensing Screens, Desks, Carboys, Specie Jars, Shop Rounds, Nests of Drawers, Ointment Jars, &c., &c., Half Price.

POISONING.

To Avoid Poisoning
 by Impure Water use
 the **Mawson Filter.**

The Mawson Filter Co., Newcastle-on-Tyne, and all Wholesale Houses.

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 66 Bath Street, City Road,
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GELATINE-COATED DOG AND FOWL PILLS.

SOLE MAKERS OF
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CELATINE CAPSULED
HORSE BALLS.

Alterative, Condition, Cordial, Cough,
 Diuretic, Fever, Physio, Worm, Quinia
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SAMPLES FREE.

TRADE MARK.

CAMWAL

THE CHEMISTS ASSOCIATED IN GENERAL AT THE ASSOCIATION LIMITED.

LONDON, BRISTOL, HARROGATE, AND MITCHAM.

CAMWAL, the largest Syphon Fillers in the United Kingdom.

CAMWAL obtained the Gold Medal, London, 1893.

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CAMWAL does not exhibit abroad.

All Chemists should support Camwal, who entirely protect their customers' interests by supplying Chemists and hospitals, and no one else. All hotels, wine merchants, and the public generally **MUST OBTAIN** their supplies of **CAMWAL WATERS** through Chemists.

CAMWAL gives the option to Chemists to buy at the lowest prices, to include delivery to all parts of London and Suburbs, or at special prices when delivery is charged.

CAMWAL possesses four separate factories for the supply of Chemists in their respective districts :—

No. 1. GIFFORD STREET, N., for London and all parts of the country.

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No. 4. BRISTOL, for the West of England, Midland Counties, and South Wales.

CAMWAL.—All Chemists are cordially invited to inspect any or all of the above factories, and they **SHOULD REMEMBER** that **CAMWAL IS THE ONLY COMPANY WHICH SUPPLIES NONE OTHER THAN CHEMISTS.**

CAMWAL has distributed Dividends 10 per cent. and 10 per cent. Bonus (equivalent to 20 per cent.) in 1893, 10 per cent. in 1891 and 1892, or 40 per cent. in three years.

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Every Chemist and every Chemist's Assistant not possessing one should secure a share. The Secretary has a few £1 Shares to transfer at 25/6 each (only one share can be transferred to each applicant).

For prices of Camwal Waters, &c., apply to Secretary, Gifford Street, London; Sun Factory, Bristol; Starbeck, Harrogate; or Raven Spring, Mitcham.

SYPHONS SELTZOGENES



Messrs. J. BARRE JOHNSTONE & CO., 20 Loftus St., Sydney, N.S.W.
Agents for New South Wales, Queensland, and New Zealand.

SODAWATER MACHINERY

AND APPLIANCES
BRATBY & HINCHLIFFE LTD
ANCOATS 146 MINORIES
MANCHESTER & LONDON

81 ROBERTSON STREET, GLASGOW.

PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

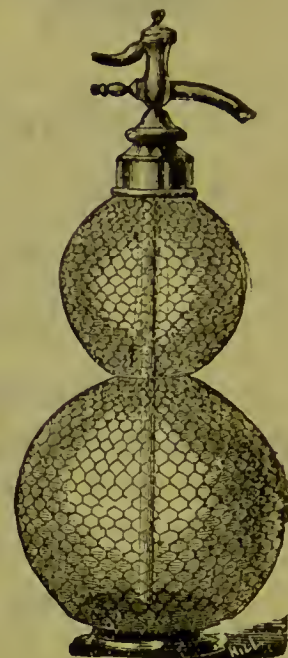
1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

Including two funnels and stopper for charging.

The tops of these Seltzogenes are made of pure block tin, guaranteed.

Messrs. NOYES BROS., 43 Queen Street, Melbourne, Victoria,
Agents for Victoria, South and West Australia, and Tasmania.

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



ESTABLISHED NEARLY FIFTY YEARS.

PRIZE MEDALS AWARDED AT ALL THE EXHIBITIONS.

EUGENE GERAUT & CO.'S LATEST NEW PATENT SELTZOGENE

PATENT No. 18,305.

For the immediate Preparation of Seltzer Water, Eau de Vichy,
Soda Water, Sparkling Lemonade, Aërated Waters, &c.



Finding so many complaints through the screws of Seltzogenes getting worn and Customers not screwing taps on tight enough, E. G. & Co. have patented the above improvement in their Seltzogenes, which differs materially from the numerous kinds that have from time to time been introduced, there being no screwing required, thus the machines cannot easily get out of order.

In place of Screw on Tap, there is a Clip, which is easily fastened to the Seltzogene, any Child being able to Screw the little Key at Top, and making perfectly Air-tight the Apparatus.

**WEAR AND WORKING GUARANTEED.
NO MORE SCREWING REQUIRED. TAP
CANNOT GET CORRODED.**

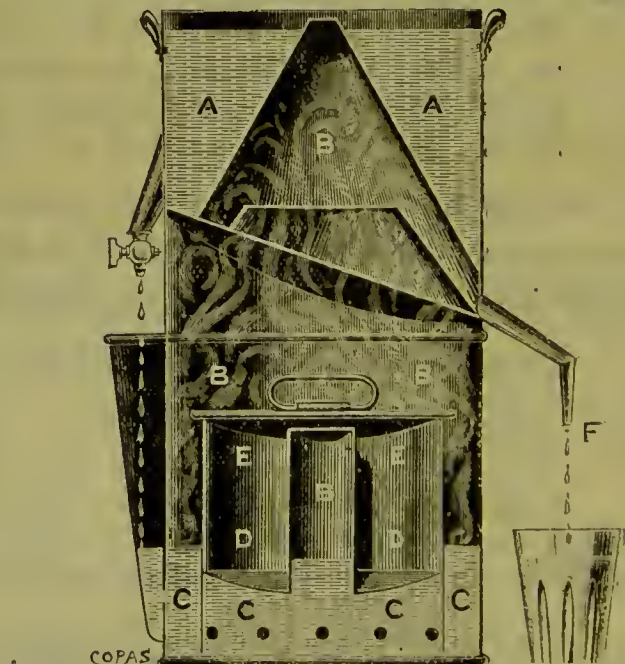
CONTRACTORS TO HER MAJESTY'S GOVERNMENT.

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Gazogenes and Seltzogenes Repaired.

BRACHER'S PATENT WATER CONDENSER



From 10/6 Plain Tin.

From 21/- Copper.

Manufactured by

JOHN A. GILBERT & CO.

Mill, Scale, and Canister Makers,
2 & 4 Mount Pleasant, Elm St., Gray's Inn Rd., LONDON, W.C.
PRICE LIST POST FREE.

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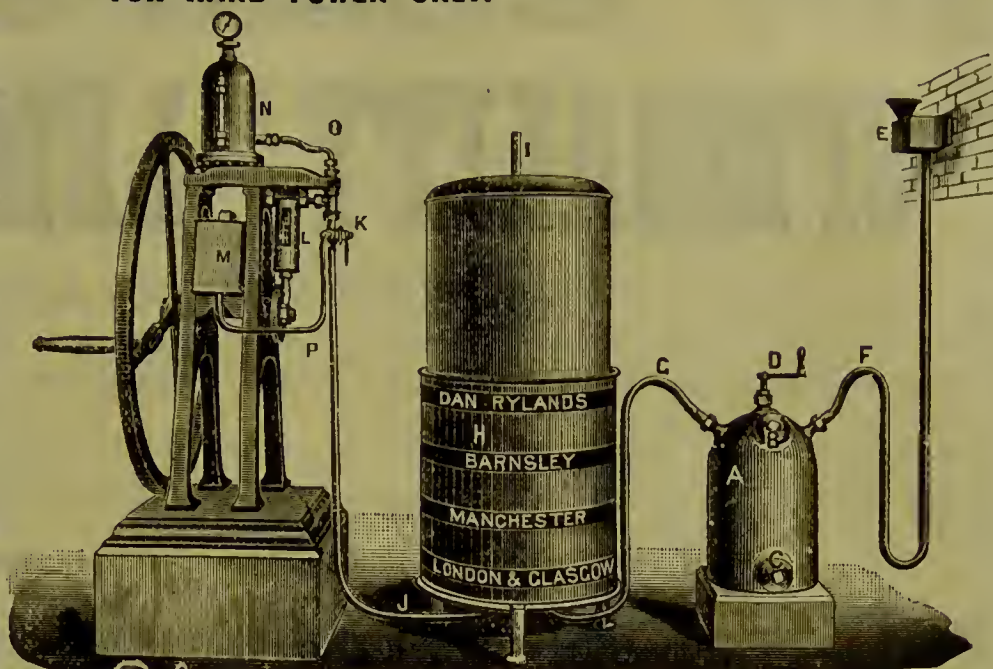
FOR HAND POWER ONLY.

The Chemists' Plant is a combination of the PATENT GLASS BARREL PUMP and AUTOMATIC SATURATING CYLINDER with the ordinary Gas Apparatus, and is designed to meet the requirements of customers whose demands are small.

The GASHOLDER is made entirely of metal (which is much better suited than wood for warm climates), with a rod running through the centre to guide the bell. It rests on an iron stand which lifts it out of the dirt and wet on the floor of the factory. The GENERATOR is made of the best rolled lead, with all seams burnt, gun-metal fittings, and large inlet and outlet for whitening. The BLOWBACK PREVENTION ACID BOX is made on the very best principles, with all seams chemically burnt, same as the Generator.

All pipes are fitted and attached exactly as shown in the cut before leaving the works, and on being attached in their proper places the plant is ready for work. The whole plant is got up in a substantial manner with good weight of material and first-class workmanship, and we can with confidence defy competition at the price.

Price of Chemists' Plant Complete as Illustrated £32. Code Word, "Rampant." Packed for Export, 5% extra.



MACHINES FOR FILLING BOTTLES.

RAPID PARAGON.

THE BEST KNOWN
FILLER EVER MADE.

OVER 4,000 SOLD.

The simplest, quickest filling, strongest and cheapest in the trade.

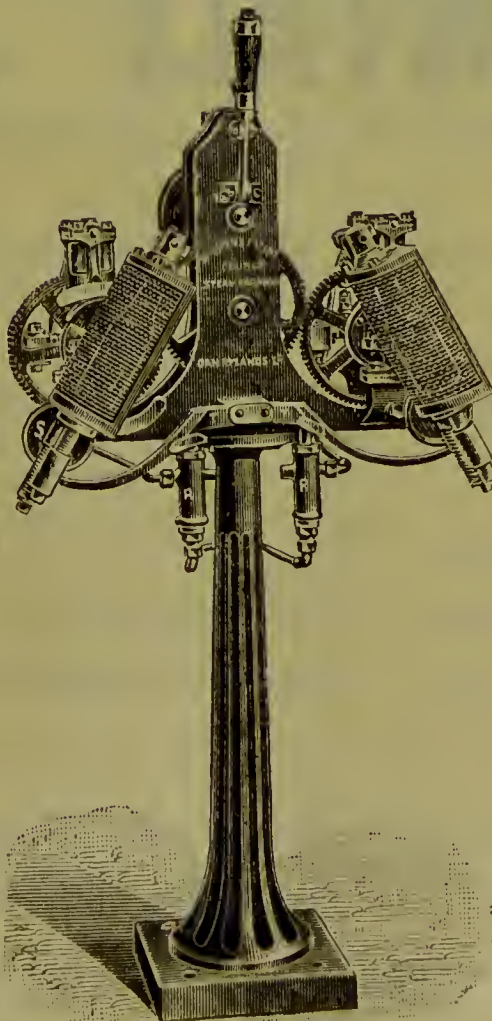
No aerated water valve.

Most reliable Syrup Pump.

No ground valves

Only one leather cup in the pump, and can be expanded without being taken out.

Easiest to keep in order.



PRICES.

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With Syrup Pump ...	9	9	0
Without „ ...	6	6	0
Packing for Export ...	0	9	6

RAPID PARAGON STEAM FILLER.

(As Illustrated.)

FOR HAND OR POWER.

AUTOMATIC IN ACTION.
NO WASTE.

Syrups and fills 100 to 120 dozen per hour.

Two kinds of water filled at one time.
Large and split bottles filled at one time.

Neither water or syrup will flow unless the bottle is in.

PRICES.

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With Syrup Pump...	23	10	0
Without „ ...	17	10	0

SYPHON FILLERS, CORKING RACKS, SYRUPING MACHINES, ETC.

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"Pure as the Unsullied Lily."

Manufactured at our Works in Messina from Selected Fruit, admitted by honest judges to be without exception the Finest in the World. Pure Oils necessitate higher prices, but they give most satisfaction, and are cheapest in the end.

Buy direct from the Makers, and save intermediate profits.

☞ "The victory fell on us, Excellence did earn it." ☞

OL. SANTALI "BUSH"

"How far dost thou Excel."

This Oil is now generally Prescribed by the Profession, and we entreat Chemists to dispense it.

It is drawn from selected wood, and always reliable.

Dr. Henderson says, "It is a pure Oil of high character."

Dr. Hargreaves says, "Well adapted for quick cure."

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"The Lancet" writes, "Admirably adapted for use."

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ARMBRECHT COCA WINE

ITS VIRTUES.

A powerful nerve stimulant. Restores the functions of the digestive organs, strengthens the mental and physical powers, assuages thirst, relieves nervous debility. Given with benefit in cases of opium and morphia habit.

THE ORIGINAL.—The leaves which we always employ are those of **Erythroxylon Coca**, Lamarck. We select them with the greatest care, and ensure by a thoroughly sound process of manufacture that Armbrecht Coca Wine is a true representation of the valuable properties of the drug.

THE FAVOURITE.—The composition of the "medium" wine, which has by far the largest sale of the six varieties, is *our secret*. We introduced this wine, at the suggestion of Dr. Spencer Wells, as a kind of compromise between Malaga, which was generally considered too sweet, and Burgundy, which found some objectors on the score of tartness of taste.

Please use this Order Form.

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Please send immediately on the receipt of this by _____

SPECIAL PRICE FOR GROSS LOTS

				WHOLESALE.			RETAIL PRICE.	£	s.	d.
--	--	Doz. Coca Wine	--	... 36/0	--	...	Imperial Pints ... 48/0 doz.			
--	--	" Coca Burgundy	...	36/0	...	--	" ... 48/0 "			
--	--	" Coca Malaga	...	36/0	...	--	" ... 48/0 "			
--	--	" Coca Port	...	36/0	...	--	" ... 48/0 "			
--	--	" Coca Sherry	...	36/0	...	--	" ... 48/0 "			
--	--	" Coca Champagne	...	46/6	...	--	Quarts ... 56/0 "			
--	--	" " "	...	26/6	...	--	Pints ... 33/0 "			
--	--	" Coca Wine Extract	...	31/6	...	--	Bottles ... 42/0 "			
--	--	" " "	...	49/6	...	--	" ... 66/0 "			
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--	--	" " "	...	22/6	...	--	Tin ... 30/0 "			

PAMPHLETS FOR DISTRIBUTION—NO CHARGE.

IF ORDER BE SENT TO US DIRECT, and REMITTANCE ENCLOSED, we offer a discount of 2½ per cent. single dozen, not less; and 5 per cent. on 3-dozen lots, Carriage Paid England and Wales, and Half Scotland and Ireland.

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For firms in India, the British Colonies, and other parts abroad are executed at a substantial discount. Please order direct (giving references), or through London agents.

SOLE MANUFACTURERS—

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Duke Street, Grosvenor Square, London.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and
sound Port Wine

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.

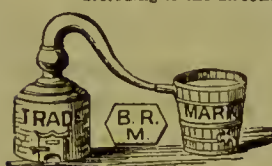
Lecturer on Materia Medica in the Owens College, Manchester (Victoria University)
December 15, 1888.

Introduced 1853.]

ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.]

One ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver., Concent., 6/ lb.	Aqua Fœniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassiæ " 8/6 "	" Menth. Pip. " 4/ "	" Rosæ " 5/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 6/ "	" Rosæ Virgin " 10/6 "
" Carni " 4/ "	" Flor. Sambuci " 8/6 "	" Virid. " 4/ "	

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.
From the LANCET, July 15, 1887:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—An ounce of the samples sent to us and Aq. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopœia. They are excellent in quality, and will be very useful, especially in country practice." (1)
Wholesale Agents: HEARON & Co., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

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HIRST, BROOKE & HIRST (LIM.), LEEDS,

Manufacturing Chemists and Wholesale Druggists, Manufacturers of

ORANGE WINE

Of Finest Flavour and Quality, and specially suitable for the Preparation of Orange Quinine Wine.



A COMPLETE APPARATUS,
CAPABLE OF PRODUCING

OVER

300 DOZ. BOTTLES

of Aerated Water per day,
at a minimum of cost,
from

£20.

NO DANGER. NO MESS.
SODA-WATER MACHINERY
BOTTLES, SYPHONS,
AND ALL APPLIANCES FOR THE TRADE.
Write for
ILLUSTRATED
CATALOGUE,
Post Free upon Application.
BARNETT & FOSTER
NIAGARA WORKS,
26^T EAGLE WHARF ROAD,
LONDON, N.



NET PROFIT OF 8/- IN THE £.

This is the guaranteed net profit you can make on every Pound's worth of *Pepsalia* you buy—even if you sell the 1/- bottle at the minimum Store price of 10½d. Good enough, is it not?

All you need to do is to sign our Agreement, and to send your order to your wholesale house, or direct to us.

The price of *Pepsalia* is at the rate of 9/6 the 1/- size, and 19/- the 2/- size. In either case we will give you a Bonus of 2/- per dozen on every 19/- worth you buy, provided you sign our Agreement.

Our Agreement stipulates:—

1. That you do not sell under 10½d. and 1/9.
2. That you exhibit two or three bottles (and a Show Card, if you are in the habit of exhibiting such) on your Counter, or some prominent position, and that when you can do so to push the sale of *Pepsalia*.

The Bonus we give you is not merely because you undertake not to sell under the minimum prices of 10½d. and 1/9, but also for exhibiting and pushing the goods.

The system we have introduced is working very well.

Why do you not take advantage of the offer?

SEND FOR AN AGREEMENT FORM AND PARTICULARS TO

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.



VINACOCA

Embracing the Therapeutic Properties of the **COCA** Plant, blended with the best Madeira. The **VINACOCA** is carefully prepared from the best Coca Leaf only. (No Addition of Cocaine.)

ONLY ONE WINE (CHOICE MADEIRA)
ONE QUALITY (A)
ONE PRICE } The Best and Cheapest
on the Market.

The best Restorative is
(Rolland's Coca Wine).

The best Nerve Tonic is
(Rolland's Coca Wine).

The best Renewer of Health is
(Rolland's Coca Wine).

VINACOCA

VINACOCA

VINACOCA

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail.

Usual Trade Discount. Pamphlets for distribution, carriage paid.

COCA is prepared in various forms: COCA WINE, COCA LIQUEUR,
COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA,
COCA CHOCOLATE, COCA TOBACCO, &c.

FULL PARTICULARS FROM

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REGENT STREET,

PURE LIQUORICE JUICE.



"SOLAZZI"

is the only Liquorice Juice universally acknowledged and prescribed by the Medical Profession.

"SOLAZZI"

possesses quality and flavour of a distinctive character, lacking in all inferior brands.

"SOLAZZI"

is certified by Analysis to be an absolutely Pure Extract.

"SOLAZZI"

is the Standard Article in the Trade.

Commended by the leading organ (*The Chemist and Druggist*) as "The most esteemed of all," and by *Health* (edited by Dr. ANDREW WILSON, F.R.S.E., &c.) as "By far the best and purest."

Of all Wholesale Houses.

Ask for Show Cards and Handbills.

INSIST ON "SOLAZZI."

RIDGE'S PATENT COOKED FOOD

Gives Health, Strength, Comfort to Old and Young, Quiet Nights to Mothers and Nurses.

DR. RIDGE'S

PATENT COOKED FOOD

Is certified to contain all the essentials of a Pure Dietary necessary to secure a healthy and natural development of bone and muscle, a vital necessity to growing infants and a comfort to all.

DR. RIDGE'S FOOD has the LARGEST SALE of any infant's food in the world.

SOLD
EVERYWHERE.

The public are cautioned against all imitations.



Pamphlets and Showcards Post Free on application to
RIDGE'S ROYAL FOOD MILLS, LONDON, N.

ONE BY ONE!

PASCALL'S SILVER CACHOUS BRILLIANTLY POLISHED.

FRAGRANT AROMA.

FINEST IN THE MARKET.

(IN ROUND PATENT BOXES, MADE TO RELEASE ONE BY ONE.)

QUITE
NOVEL

PREFERRED
TO ALL
OTHERS.

In 1 dozen
Outer
Boxes.



Most
Saleable

2/3
per dozen
In
1-lb. Bottles
3/6
per lb.

Of the usual Wholesale Houses, and of the Manufacturer,
JAS. PASCALL, Blackfriars Rd., LONDON, S.E.

PETER TYRER'S SAUCES

WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

			Per gross.	Extra quality.		Per gross.	Extra quality
1d. Sample Bottles, dozen parcels	..	..	5/3	..	6/3	1/2 Bottles, flat or round, reputed half-pints	.. 16/- .. 28/-
" " 1/2-gross boxes	..	..	5/9	..	6/9	" " pints	.. 26/- .. 38/-
1d. Giant " dozen parcels	..	..	6/6	..	8/6	1 Pint "Imperial", round stoppered bottles	.. 52/- .. 62/-
" " 1/2-gross boxes	..	..	7/-	..	9/-	12 1/2-Gallon Casks (casks free)	.. each 20/- .. 32/-

ROYAL CAFE SAUCE, a Rich Fruity and Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly 1/2-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.
CHIEF SCOTCH AGENCY — West Nile Street, GLASGOW.

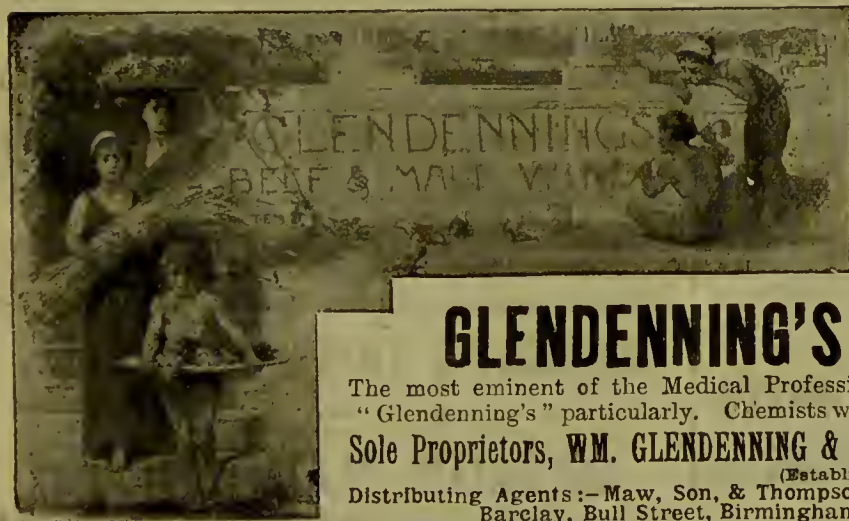


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PARTICULARS ON APPLICATION.

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ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

NOTE—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Andros & Co. Coloured Supplement	Davidson & Gray 54	Isaac, I. & Co. 49	Rookledge, F. E. 49
Anglo-American Varnish Co. 49	Day & Sons Text 78	Izal 49	Ross & Sons (Lim.) 54
Apollinaris Co. Cover	De St. Dalmas, A. E. 52	Jewsbury & Brown 55	Rylands, Dan (Lim.) 11
Armbricht, Nelson & Co. 13	Demarchi, Parodi & Co. 42	Johannis Co. (Lim.) 34	Sanger & Sons 28
Australian Drug Co. (Lim.) 45	Dodgson & Olcott 38	Johnsen & Jørgensen 52	Sanitas, The, Co. (Lim.) .. Text 78
Ayrton & Saunders 57	Dorina Biscuits 19	Jones & Co. 20	Schmidt, K. 43
Barclay & Sons (Lim.) 27, 46	Edwards & Co. 53	Kemp & Son 40	School of Pharmacy, The 4
Barnett & Foster 14	"Electrotypes" 54	Kemphorne, Prosser & Co. 43	Sheffield College. 5
Barron, Harveys & Co. 42	Evans and Sons (Lim.) Cover	Kilner Bros. 56	Sliverlock, H. 6
Beecham, T. 29	Evans, Lescher & Webb, London	Lakeman, J. J. 55	Snowdon, S. & Co. 49
Belden, E. & W. 53	Cover	Lalor, Dr. 41	"Solezzi" 16
Berdoo & Co. Coloured Supplement	Exchange Column 8	Lambert, S. & Co. 54	Soni, W. H. & Co. 45
Berend, O. & Co. 5	Fallowfield, J. 5	Langline 33	Southwell, O. & Co. 19
Bertie-Smith, A. E. & Co. 44	Fass, A. 44	Langland, Mackay & Co. 47	Sozio & Andrioli 21
Blair's Pills 54	Felton, Grimwade & Co. 44	Lennon, B. G. & Co. (Lim.) .. 44	Spratt's Patent (Lim.) 43
Blyton, Astley & Co. 30	Fink, F. & Co. 55	Leo & Co. 29	Squire, P. 4
Boord & Son 20	Fitch & Nottingham 42	Levermore, A. & Co. 54	Stern, G. & G. 15
Bovril (Lim.) 17	Fletcher, Fletcher & Stevenson	Liverpool School 4	Stokes' Check Tilt Co. 5
Bow's Liniment 46	55, Text 78	Lloyd, T. Howard & Co. 37	Surrey Packing Co. 22
Bowers Bros. 6	Ford, Shapland & Co. 6	Lofthouse & Saltmer 40	Tasmanian Eucalyptus Co. 47
Bowling & Govier 53	Fox & Sons 40	Lorenz, H. 54	Taylor Bros. 6
Bratby & Hinchliffe (Lim.) 10	French Hygienic Co. 15	Maw, S., Son, & Thompson ... 3	Thiellay, E. H. 54
Brett, F. J. Coloured Supplement	Gates, T. & T. 55	Mawson Filter Co. 8	Toogood, W. 28
Bromley, C. 54	Gerant & Co. 10	May & Baker (Lim.) Cover	Treatt, R. C. 21
Browning, A. J. 51	Gilbert, J. A. & Co. 10	May, Roberts & Co. Cover	Truefitt, H. P. (Lim.) 22
Brunner, Mond & Co. 36	Glendenning, W. 17	Melin, O. 52	Tyler Rubber Co. 58
Burgess, E., junr. 46	Goodall, Backhouse & Co. 18	Mellin's Food. Text 78	Tyrer, P. 17
Burroughs, James 20	Graf, F. 54	Metropolitan College 4	Vaccine Association 41
Burroughs, Wellcome & Co. 32, 33, 34	Greensill & Son 20	Millar, A. & Co. 14	Victoria Rubber Co. 52
Bush, W. J. & Co. 12	Grossmith, Son & Co. 20	Moenich, O. & Co. 22	Walker, Troke & Co. 8
Bygrave, J. W. 53	Guest, T. & Co. 19	Mumford, G. S. Text 78	Wand, S. 46
Cadbury Bros. Cover	Harroline Pill Co. 41	Natali, A. J. & Co. 8	Wandsworth Chemical Co. (Lim.) 48
Cailler, Walker & Co. 21	Haywood, J. H. 51	Ness & Co. 54	Warren, A. & J. 55
Calvert, F. C. & Co. 48	Heath Bros. 54	Oppenheimer, Son & Co. (Lim.) 31	Warrick Bros. 19
Carter, H. W. & Co. 55	Hebden, W. C. 48	Pascal, J. 16	Washington Chemical Co. 40
Caspar & Co. (Lim.) 49	Hertz & Collingwood 19	Peake, Allen & Co. 44	Watson, J. & Son 22
Cassie & Co. 22	Hewlett, C. J. & Son 41	Pears, A. & F. (Lim.) 35	Watson, J. & Son 55
Central School 4	Hirst, Brooke & Hirst (Lim.) .. 14	Petersen, M. & Co. 22	White, Fairchild & Co. 54
Champion & Co. (Lim.) 17	Hockin, Wilson & Co. 7	Pott, R. & N. Text 78	Wilcox, W. H. & Co. 49
Chemists' Aërated and Mineral	Holloway's Pills 42	Prosser, Taylor & Co. 43	Wills & Wootton 4
Water Association (Lim.) .. 9	Hooper & Co. Cover	Richards & Bert 54	Wright, Layman & Umney ... 34
Christy, T. & Co. 54	Horn, O. E. 22	Richardson, J. & Co., Leicester (Lim.) 39	Wyth, J. & Bro. 24
Clark, S. & Co. 51	Hovenden & Son 23	Ridge's Food 16	Youldon, E. 52
Coleman & Co. (Lim.) 18	Howlett, S. 53	Robinson, B. 14	Young, H. 22
Creeker, G. B. Coloured Supplement		Robinson & Sons (Lim.) 49	

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

ACETIC ACID

Fuerst Bros.
Lorenz, H.
Morris & Callard (Salts)

ACIDS

Boulton, J. & Co., Lim.
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Apollinaris Co.
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[See SYNOPSIS and ESSENTIALS.]

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Liquor Carnis Co., Lim.

Wyth, J. & Bro.

BICARB. SODA

Brunner, Mond & Co., Lim.
Howards & Sons
May & Baker, Lim.

BISMUTH PREP.

Hearon, Squire & Francis
Hewlett & Sons
Howards & Sons
May & Baker, Lim.
Symes & Co. | Tyrer, T. & Co.
White, Alfred, & Sons

BOOKS

Hargreaves, Dr., M.D.
Lewis, H. K.
Squire, P.

Wills, G. S. V.

BORAX

Howards & Sons

Mack's Starch

BOTTLES

Aire & Calder Bottle Co., Lim.

Barnett & Foster

Barrett, R. H.

Bratby & Hinchliffe, Lim.

Evans, Sons & Co.

Gilbertson, H. & Sons

Hearn, Wright & Co.

Isaacs & Co.

Johnsen & Jørgensen

Kilner Bros.

Maw, S., Son & Thompson

Pothe, H. & Co.

Rylands, Dan, Lim.

Toogood, W.

"W" Brand Bottles

Youldon, E.

BOXES

Austin & Co. (Cardboard)

Ayrton & Saunders

Evans, Sons & Co.

Kent, G. B. & Sons

Kilner Bros.

Müller, P. (Tin)

Robinson & Sons

Rylands, Dan, Lim.

BRUSHES

Evans, Sons & Co.
Kent, G. B. & Sons

BUNSEN BURNERS

Berend & Co.

BUTTER OIL, &c.

Boulton, J. & Co., Lim.
Crawshaw & Co.
Tomlinson & Hayward

CACHOUS

Bleasdale & Co.
Blyton, Astley & Co.

Pascal, J. | Raimes & Co.

Warrick Bros.

CAMPOR

Fuerst Bros. | Howards & Sons

May & Baker, Lim.

CAPSULES

Denoual, J. (Medicinal)

Duncan, Flockhart & Co.

Evans, Sons & Co.

Holroyd, J. & Co. (Moulds)

Hooper, B. & Co.

Lloyd, T. Howard & Co.

Lofthouse & Saltmer

Richardson, John. A. Co. (Leicester)

Warrick Bros. (Leicester), Lim.

CARBOLIC ACID

Calvert, F. C. & Co.

Mason, C. E. & Co.

CSCRA SAGRADA

Anderson & Co.

Duncan, Flockhart & Co.

Evans, Sons & Co.

Ferris & Co. | Moss, J. & Co.

CASTOR OIL

Allen & Hanbury

Christy & Co. (Aromatization)

Fuerst Bros.

Southall Bros. & Barclay

CATALOGUES & PRICE LISTS

Burroughs, Wellcome & Co.

Gibson, R. & Sons

Lorimer & Co.

Maw, S., Son & Thompson

May, Roberts & Co.

Hewbery, F. & Sons

Sanger & Sons

CERESINE WAX

Boehm, Fredk.

CHALK, PRECIP.

Levermore, Aug. & Co.
Nicholls, G. W.

CHECK TILLS

O'Brien, Thos.

Stokes, G. E. & Co., Lim.

CHEMICALS

Boehm, Fredk.

Boehring, C. F. & Sohn

Boulton, J. & Co., Lim.

Brunner, Mond & Co., Lim.

Fletcher, Fletcher & Stevens

Fuerst Bros.

Goodall, Backhouse & Co.

Hill, A. S. & Son (Clarke)

Hodgkinson, Treacher

Howards & Sons (Pharm.)

Jones, Jno.

Lofthouse & Saltmer

Lorenz, H.

May & Baker, Lim.

Morris & Callard | Moss & Co.

Smith, T. & H. & Co.

Type & King | Tyrer, T. & Co.

Washington Chemical Co.

White, A. & Sons

Zimmermann, A. & M.

CHEST PROTECTORS

Chemists' Association, Lim.

Hockin, Wilson & Co.

Liverpool Patent Lint Co.

Maw, S., Son & Thompson

Nowbury, F. & Sons

Pattison, G.

Schutze, G. | Solport Bros

Wood, Vincent

CHLOR. OF LIME

Government Sanitary Co.

National Chemical Co.

CHLOROFORM, &c.

Duncan, Flockhart & Co.

Macfarlan, J. F. & Son

Smith, T. & H. & Co.

Wright, Layman & Umney

Zimmermann, A. & M.

CHLORODYNE

Blyton, Astley & Co.
Davenport (Browne's)
Towle, A. P., & Son

COCA & CHOCOLTE

Gadbury Bros. | Christy & Co.

COCA WINE

Armbrrecht, Nelson & Co.
French Hygienic Soc.
Stephen Smith & Co. (Hall's)

COCAINE-HYDRO.

Howards & Sons

COOL-LIVER OIL

Allen & Hanburys
Bleasdale & Co.
Burroughs, Wellcome & Co.
Evans, Sons & Co.
Hill, A. S., & Son
Hockin, Wilson & Co.
Oppenheimer, Sons & Co., Lim.
Richardson, J., & Co., Lim.
Robinson & Co.
Smith, T., & H., & Co.
Southall Bros. & Barclay
Woolley, Sons & Co.

COFFEE

White, Fairchild & Co.

COLAPSEL TUBES

Betts & Co.

COMP. MEDICINS

Allen & Hanburys
Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Fuerst Bros.

CONCENT. LIQES.

Fletcher, Fletcher & Stevenson
Lloyd, T. Howard & Co.
Richardson, J., & Co., Lim.

CONFECTIONERY

Gusst, T., & Co.
Pascaid, J.

CORN CURES

Pattison, G. | Solport Bros

COTTON WOOL

Haynes, G., & Co. (Absorbent)
Robinson & Sons (Absorbent)
Sanger, J., & Sons
Warrick Bros.

CRSED LENSES

Mumford, S. G.

DENTIFRICES

Bailey's Toilet Co.
Beecham, T.
Bronnley, H., & Co.
Dorothy Dentifrice Co.
Hanson, O.
Jewsbury & Brown
Lakeman, J. J.
Queleh, H. O.
Santon, O., & Co.
Thompson & Capper
Warrick Bros.
Woods, W. (Areca Nut)

DENTISTRY

Browning, A. J.
Stevens, P. A.

DISINFECTANTS

Barclay & Sons, Lim.
Blyton, Astley & Co.
Brooks, T.
Burroughs, Wellcome & Co.
Calvert, F. O., & Co.
Drysdales, J. W., & Co.
Dusseck Bros. & Co.
Fletcher Bros. & Co.
Hebden, W. O.
Government Sanitary Co.
Kearl
Jeyes' Sanitary Compounds Co
Mackay, Mackay & Co.
Mason, O. E., & Co.
May & Baker, Lim.
National Ob. mife. Co.
Sanitas Co., Lim.
Seabury & Johnson
Tyrer, T., & Co.
Wandsworth Chemical Works, Lim.

DOG MEDICINES

Heald, A. J.
Spratt's Patent, Lim.

DRUGS

Graf, P. | Hopf, R.
Richardson, J., & Co., Lim.
(Grinders)

DRUGGISTS' SUN.

Ayrton & Saunders
Bailey, M., & Co.
Barclay & Sons, Lim.
Besiden, E. & W.
Chemists' Association, Lim.
Unrrie, W., & Co.
Evans, Lescher & Webb
Evans, Sons & Co. (Savars)
Fordham, W. B., & Sons, Lim.
Fordham & Smith
Gilbertson, H., & Sons
Hatrack & Co., Lim.
Heath Bros.
Hockin, Wilson & Co.
Idris & Co., Lim.
Kay Bros., Lim.
Maw, S., Son & Thompson
May, Roberts & Co.
Mullerson, H.
Newbery, F., & Sons
Queleh, H. O.
Sanger & Son | Sehntze & Co.
Tidman & Son | Toogood, W.
Tunbridge & Wright
Tyer Rubber Co.
Wood, Vincent | Young, J.

DRYSALTERIES

Browning, J. H., & Co.
Burton, W., & Sons

DYES, &c.

Ayrton & Saunders
Burton, W., & Sons
Grawshaw & Co.
Wells & Richardson Co.

EAU DE COLOGNE

Blondeau & Co.
Farina, J. M.
Hookin, Wilson & Co. (Farina)
Martin, Maria (Nun)
Moesch, Oscar, & Co.
Muhlen, F.

ELECTRIC APPAR.

Darton, F., & Co.
Gent & Co.

EMBROCATION

Day & Sons

ENEMAS

Barclays, Lim.
Evans, Sons & Co.
Sanger & Son
Wood, Vincent

ENGRAVERS

Caspar & Co., Lim.
Oorsan, J. R.

ESSENCES

Boehm, Fredk.
Boulton, J., & Co. (Lim.)
Brathby & Hinchliffe, Lim.
Burgoyne, Burbridges & Co.
Rush, W. J., & Co.
Cartor, H. W., & Co.
Fletcher, Fletcher & Stevenson
Goodall, Backhouse & Co.
Idris & Co., Lim.
May & Baker, Lim.
Meadowcroft & Son
Newball & Mason
Rylands, Dan, Lim.
Stevenson & Howell
Tyrer, P. (Anechovics)
Tyrer, T., & Co.
Woolley, Sons & Co.

ESSENTIAL OILS

Allen, Stafford, & Sons
Barrett, A. A.
Boehm, Fredk.
Brummersadt & Liders
Bush, W. J., & Co.
Olvy, Dod & Co.
Oatler, Walker & Co.
Dodge & Olcott
Evans, Sons & Co.
Hodgkinsons, Treacher & Clarke
Lambert, S., & Co.
May & Baker, Lim.
Richards & Bert
Rylands, Dan, Lim.
Sosis & Andrioli
Stevenson & Howell
Synes, Treast, E. O.
Warrick Bros.
Witrofsky, E.
Wright, Layman & Umney

ETHER

Duncan, Flockhart & Co.
Howards & Sons
May & Baker, Lim.
Robbins, J., & Co.
Tyrer, T., & Co.
White, A., & Sons
Woolley, Sons & Co.
Wright, Layman & Umney

EUCALYPTUS

Bleford
J. ownie B.I.P. Co.
Evans, Lescher & Webb
Grimwade, Bidley & Co.
Langhland, Mackay & Baker
Mackay, Mackay & Co.
Tasmanian Eucalyptus Oil Co.

EXTRACT MEAT

Armour & Co.
Bovril, Lim.
Brand & Co.
Idris & Co. (Viking Co.)
Liebig Co.
Mason, G., & Co., Lim.
Wyeth, J., & Brother

EXTRACTS, FLUID

Allen & Hanburys
Burgoyne, Burbridges & Co.
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Hooper, B., & Co.
Lloyd, T. Howard, & Co.
Moss & Co.
Potter & Clarke
Richardson, J., & Co., Lim.
Wright, Layman & Umney

FEEDG BOTTLES

Burroughs, Wellcome & Co.
(Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Hearn, Wright & Co.
Hockin, Wilson & Co.
Kilner Bros.
Marriott, E., & Co.
May, Roberts & Co.
Maw, S., Son & Thompson
Surrey Packing Co.

FILTERG PAPERS

H. C. Quelch

FILTERS

Fordham, W. B., & Sons, Lim.
Gilbert, J. & A.
Mawson Filter Co.

FOOD (Infants' & Invalid's)

Allen & Hanburys
Benger's Food | Brand & Co.
Ohlbnall, H. B.
Evans, Sons & Co.
Goodall, Backhouse & Co.
Hearon, Squire & Francis
King, F., & Co. (Lim.)
Liebig Co. | Lorimer & Co.
Mason, G., & Co. Lim.
Mellin's Food | Nestlé, H.
Bids, Dr. | Tyrer, P.
Viking Food Co.
Wyeth, J., & Bro.

FORMULA

Brooks, T.

GINGER ALE

Mills, R. M., & Co.
Roes & Sons (Lim.)

GLYCERINE

Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Fuerst Bros.
Price's Candle Co., Lim.
Watson & Sons

GOLD-BEATERS' SKIN

Gates, T. & T.

GOUT & RHEU-MATIC PILLS

Bromley, C.
Prout & Harsant (Blair's)

GRANULAR PREP.

Bishop, A., & Sons
Blyton, Astley & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard, & Co.
Richardson, J., & Co., Lim.
Wright, Layman & Umney

GUM

Fink & Co. (Arabic, &c.)

HAIR PREP.

Anglo-American Drug Co.,
Chesbrough Co. [Lim.]
Edwards & Co.
Horn, O. E.
Trnedtt, H. P., Lim.

HERB BEER HTS

Newball & Mason
Potter & Clarke
Schmidt, Karl

HOMCEOPATHIC

Keene & Ashwell
Leath & Ross
Thompson & Capper
Watson & Wates

HONEY

Evans, Sons & Co.
May, Roberts & Co.

HYPOPHOSPHITES

Duncan, Flockhart & Co.
Fellows
Fletcher, Fletcher & Co.
Lorimer & Co. | Symes & Co.
Tyrer, T., & Co.

INDIARUB. GOODS

Tyer Rubber Co.

INHALERS

Burroughs, Wellcome & Co.
Hockin, Wilson & Co.
Spiroco, Co. The
Toogood, W.

INK [See MARKING INKS]

Bewley & Draper
Insecticides
Roeke, Tompsitt & Co.
Steiner & Co.
Stevenson & Howell

KETCHUP

Tyrer, P.

KOLA PREPETH

Christy, T., & Co.

LARD

Ewen, J., & Sons
Lime Juice
Evans, Sons & Co.
Lorimer & Co.

LINT

Liverpool Lint Co.
Maw, S., Son & Thompson
Newsome, O.
Robinson & Sons

LIQUORICE

Dennis Di Luggo & Co.
"Solazzi"

LITHIA

Fuerst Bros.
Lozenges
Allen & Hanburys
Blyton, Astley & Co.
Davidson & Gray
Gibson, E., & Sons (Manfrs.
Gusst, T., & Co.
Hill & Son | Lorimer & Co.
Pascaid, J.
Raines & Co.
Richardson, J., & Co., Lim.
Warrick Bros.

MACHINERY

Bennett, Sons & Shears (Lim.)
Burroughs, Wellcome & Co.
Gardner, W.
Martin Peris & Co.
Ohlson, A. | Pindar, J. W.
Werner & Pfleiderer (Knead-
ing and Sifting)

MAGNESIA

Bush, W., Son & Co.
Dunean, Fuller & Co.
Evans, Sons & Co.
Henry, T., & W. (Osteined)
Hill, A. S., & Son
Washington Chemical Co.

MALT EXTRACT, &c.

Allen & Hanburys
Burroughs, Wellcome & Co.
(Kepler's)
Glendinning, W.
Hearon, Squire & Francis
Lorimer & Co.
Moss, J., & Co.
Oppenheimer, Sons & Co., Lim.
Raines & Co.
Richardson, John, & Co. (Lei-
cester), Lim.
Robinson & Co.

MARKING INKS

Bond, John (Crystal Palace)
(Link and Pencils)

MEDICINE CHSTS

Burroughs, Wellcome & Co.
Day, Son & Hewitt (Veterinary)
Day & Sons (Veterinary)
Richardson, J., & Co., Lim.

MENTHOL

Burroughs, Wellcome & Co.
Christy, T., & Co.
Evans, Sons & Co.
Hockin, Wilson & Co.
Maw S., Son & Thompson
Shirley Bros. | Tyrer, P.

MERCURIALS

Fuerst Bros.
Howards & Sons
May & Baker, Lim.
Tyrer, T., & Co.

METH. SPIRITS, &c.

Boord & Son | Burroughs, J.
Jones & Co.
Phillips, G., & Co.
Smith, S., & Co.
Warren, A., & J.

METHYLENE

Robbins, J., & Co.

MICROSCOPES

Darton, F., & Co.

MILK

Nestlé, H. (Condensed)

MORPHIA

Macfarlan, J. F., & Co.
Smith, Bartie, & Co.
Smith, T. H., & Co.

OILS, PAINTS, VARNISHES, &c.

Anglo-American Varnish Co.
Browning, J. H., & Co.
Fox, W., & Sons
Pinchin, Johnson & Co.

OINTMNT BASES

Burgess, E., jun.
Burroughs, Wellcome & Co.
(Lanoline)
Chesbrough Co. (Vaseline)
Christy, T., & Co.
Lanoline
Lloyd, T. Howard, & Co.
Richardson, J., & Co. (Lei-
cester), Lim. (Anasapaline)

OPIUM

Bertie-Smith & Co.
Hopf, R.

OPTICIANS

Botwright & Gray
Darton, F., & Co.

OTTO OF ROSE

Fuerst Bros.
Warrick Bros.
Witrofsky, J. R.

OXIDE OF ZINO

Hubbuck, T., & Son, Lim.

PAT. MEDCNS, &c.

Atkinson & Barker (Infant
Preserv.)
Barclay & Sons, Lim.
Beecham, T. (Pills)
Bow's, Dr., Liniment
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixture
Congreve, G. F.
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Fenning (Powders)
Goodall, Backhouse & Co.
Holloway (Pills and Oint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
Mackenzie, Dr. (Catarrh Cure)
May, Roberts & Co.
Newbery, F., & Sons
Pepper, John, & Co. (Lim.)
Popular Remedies Mix. oo.
Roberts & Co. (Foreign)
Rooke, Dr., 'Im.
Southall Bros. & Barclay
Sutton, W., & Co.
Wilson, A. (Bunter's Nerveine)

PEPSIN, &c.

Armour & Co.
Burroughs, Wellcome & Co.
Chesbrough & Co.
Fletcher, Fletcher & Stevenson
Lorimer & Co.
Newbery, F., & Sons (Ingluvin)
Stern, G. & G.
Warner & Co. (Ingluvin)

PEPPERMINT OIL

Bush, W. J., & Co.
Stevenson & Howell

PERFUMERY, FANCY SOAPS

Barclay & Sons, Lim.
Bleasdale & Co.
Blondeau & Co. | Boehm, F.
Blyton, Astley & Co.
Brooks, T. (Solid Perfums)
Brummersadt & Liders
Burroughs, Wellcome & Co.
Chemists' Association, Lim.
Chesbrough Co.
Evans, Sons & Co.
Ewen, J., & Sons
Farina, J. M.
Greenill & Son
Hovenden & Sons
Lanoline | Mulhens, F.
Newbery, A. F., & Sons (Bardoe
Pears', A. F., Lim.
Potter & Clarke
Price's Patent Candle Co.
Sandoil & Co.
Sosis & Andrioli
Tidman & Son | Treatt, E. O.
Trueditt, H. P., Lim.
Warrick Brothers
West, T. (Okell's Mona)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney

PEROX. OF HYDR.

Burton, W., & Sons
May & Baker, Lim.
Robbins & Co.

PETROLEUM

Allen & Hanburys
Barclay & Sons, Lim.
Dee Oil Co., Lim.
Fuerst Bros. (Jelly)
Hatrack & Co., Lim. (Lucilline)
Snowdon, Sons & Co.

PHARM. PREPS.

Allen & Hanburys
Armour & Co.
Bates Bros.
Barron, Harveys & Co.
Bieber, J. D., Boehm, Fredk.
Boehring, C. F., & Sohns
Boulton, J., & Co., Lim.
Bryce & Kumpff
Burgoyne, Burbridges & Co.
Burroughs, Wellcome & Co.
Chassaling & Co.
Duncan, Flockhart & Co.
Farris & Co.
Fletcher, Fletcher & Co.
Giles, Schacht & Co.
Hearon, Squire & Francis
Hewlett & Son
Howards & Sons
Jeyes' Sanitary Compounds Co.
Lambert Pharmacal Co.
May & Baker, Lim.
Moss, J., & Co.
Oppenheimer, Son & Co., Lim.
Potter & Clark
Richardson, John, & Co. (Lei-
cester), Lim.
Roberts & Co. (cester), Lim.
Smith, T. H., & Co.
Southall Bros. & Barclay
Santon, W., & Co.
Symes & Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Woolley, Sons & Co.
Wright Bros.
Wyeth, Jno., & Bro.
Zimmermann, A. & M

PHOTOGRAPHIC

Barclay & Sons, Lim.
Blackfriars Photographic Co.
Boehm, Fredk.
Botwright & Gray
Burroughs, Wellcome & Co.
Darton, F., & Co.
Fuerst Bros.
Howards & Sons (Chemicals)
Kent, G. B., & Sons
Tyrer, T., & Co.
White, Alfred, & Sons
Zimmerman & Co.

PILL MACHINES

Pindar, J. W.
Toogood, W. (Coater)
Werner & Pfleiderer

PILLS (Coated, &c.)

PLASTERS

St. Dalmas, A.
Evans, Sons & Co.
Johnson & Johnson
Leslies, Llm.
Seabury & Johnson

POLISHING

Bradley & Bourdas (Albatum)
Chancellor & Co.
Fordham, W. B., & Sons, Llm.
Oakley, John, & Sons

PORCELAIN ODS

Toogood (E.C. Pots, regist.)

POULTRY FOOD

Spratt's Patent, Llm.

PRINTING

Bowers Bros.
Gorsan, J. B. (Glass)
Ford, Shapland & Co.
Silverlock, H.
Taylor Bros.
Townsend, J.

PUMILINE

Stern, G. & G.

QUININE SALTS

Boehringer, C. F., & Sohne
Howards & Sons
Zimmermann, A. & M.

RECIPES

Brooks, T.

RENNET

Duncan, Flockhart & Co.

RUBBER GOODS

Glover & Sons
Maw, S., Son & Thompson
Tyer Rubber Co.
Victoria Rubber Co.

SACCHARIN

Allen & Hanbury
Burroughs, Wellcome & Co.

SALICIN

Macfarlan & Co.
Smith, T. & H., & Co.

SALICYLIC ACID

Burgoyne, Burdidge & Co.
Fuerst Bros. | Kuhn, R.
Zimmermann, A. & M.

SAUCES, PICKLES

Goodall, Backhouse & Co.
Lorimer & Co.
Mason, G., & Co., Llm.
Tyrer, P.

SCIENTIFIC INSTRUMENTS

Darton & Co.
Orme & Co. | Ross & Co.

SHAVING

Hovenden & Sons (Euxesia)
Lloyd, Mrs. A. S. (Euxesia)

SCHOOLS, &c.

Central School of Chemistry
City School of Chemistry and
Pharmacy, Llm.
Davis, Fredk.
Liverpool School of Pharmacy
London Homoeopathic and
Medical School
Manchester Col. of Pharmacy
Metropolitan Col. of Pharmacy
Northern School of Pharmacy
School of Pharmacy
Sheffield College of Pharmacy
South London School of
Pharmacy, Llm.
The School of Pharmacy
Westminster College

SEEDS

Potter & Clarke

SELTZOGENES

Bratby & Hinchliffe, Llm.
Evans, Sons & Co.
Geraut, E., & Co.
May, Roberts & Co.

SHEEP DIP

Jeyes' Sanitary Compounds Co.
Tomlinson & Hayward

SHOP FITTERS

Bowling & Govier
Rygrave, J. & W.
Edwards & Co.
Evans, Sons & Co.
Howlett, S.
Josephs, F.
Natali & Co.
Pothe, H., & Co.

SOAP

Ayrton & Saunders
Barclay & Sons, Llm.
Blondeau et Cie. (Vinolia)
Bronnley, H., & Co.
Calvert, F. O., & Co.
Cook, E., & Co.
Fordham, W. B., & Sons, Llm.
Jeyes' Sanitary Compounds Co.
Martin, Perls & Co.
Muhlens, F.
Pears, A. & F., Llm.
Price, Napoleon, & Co., Llm.
Wright, Layman & Umney

SODIUM PEROXID.

Burton, W., & Sons

SPECTACLES

Botwright & Grey

SPONGES

Cresswell Bros. & Schmits
Evans, Sons & Co.
Peterson, M., & Co.

STAMPS (RUBBER)

Hickisson, J.

STARCH

Chancellor & Co. (Mack's)
Crichtley (Gloss) | Double

STOPPERS

Austin & Co. (Sprinklers)
Barnett & Foster | Mellin, G.

STOVES

Clark, S., & Co., Llm.

SUGAR

Blyton, Astley & Co.
Fletcher, Fletcher & Stevenson
Gibson, R., & Sons

SUGAR OF MILK

Boehm, Fredk.

SULFONAL

Burroughs, Wellcome & Co.
May & Baker, Llm.

SURGICAL

Ayrton & Saunders
Bailey, W. H., & Son
Barclay & Sons, Llm.
Cocking, J. T.
Easchmann Bros. & Walsh
Glover & Son
Haywood, J. H.
Krohn & Seemann
Lee, J. Ellwood (Hatrik &
Co., Llm.)
Liverpool Patent Lint Co.
Macfarlan, J. F., & Co.
Maw, S., Son & Thompson
Powell & Barstow
Quelch, H. O.
Richardson, John, & Co. (Lei-
cester), Llm.
Robinson & Sons
Schutze, F., & Co.
Tyer Rubber Co.
Victoria Rubber Co.
Wood, Vincent

SYPHONS

Barnett & Foster
Bratby & Hinchliffe, Llm.
Fordham, W. B., & Sons, Llm.
Idris & Co., Llm.
Kilner Bros. | Mellin, G.

SYRUPS

Blyton, Astley & Co.
Fletcher, Fletcher & Stevenson
Idris & Co., Llm. (Liquors)

TABLETS

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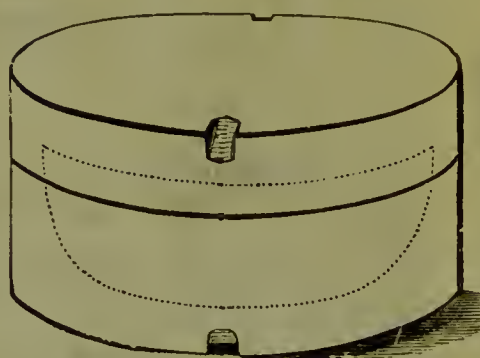
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Owing to the increasing demand
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These Pots are beautifully
glazed and finished, and, being
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for sending by post.

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1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/8	1/10	2/-	2/3	2/10	3/6	4/6	5/6 per doz.
THIN FOR DISPENSING—										
$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$	2	3	4	6	8 ounces.		
1/7	1/9	2/-	2/2	2/5	3/-	4/-	5/-	6/-	per doz.	

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The demand is unprecedented, and Druggists will find BEECHAM'S PILLS the most Saleable Patent Medicine in the Market.

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As a Remedy for Coughs in general, Asthma, Bronchial Affections, &c., these Pills stand unrivalled.

In Boxes, 9½d., 1s. 1½d., and 2s. 9d. each.

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All Chemists, Druggists and Stores should stock this new article, which is well advertised, and is a really good speciality. It is put up in collapsible tubes, Retail Price, 1s., and can be obtained from any Wholesale House.

Interview with
Mr. Smartman,
Chemist and Druggist,
Prosperton.

Good morning, Mr. Smartman; how do *you* find business during this time of general depression?

Well, sir, things are not so rosy as they might be. I am fairly busy, but might do more, you know.

Quite so, and as the country settles down after this regretful upset in the coal industry, no doubt things will brighten, but its effects have been far-reaching.

That is so; the failure of the coal supply has thrown out of employment thousands of wage-earners; this has diminished the spending capacity, and drugs have suffered with the rest, and perhaps to a greater degree.

However, you find the Winter Trade picking up—a brisker demand for Cough Medicines, Chest Protectors, Lozenges, Jujubes, and similar goods?

Oh, yes; the recent activity at the Weather Office has brought about the usual consequences—colds, coughs, and general indisposition. Talking of Jujubes, those Glycerine and Paregoric Pastilles of yours are splendid things—capital combination!

That's right. You find them go?

Well, those two boxes came in last week. They are nearly all gone, so I divided what was left between the two: it makes a little more show. You know I am a great believer in showing saleable lines.

I agree with you—that is the correct policy.

One has to be up and doing nowadays. Let the people see you have got what they want, and are there to supply it. The Pastilles sell themselves; beyond answering one or two questions in the first instance, I haven't unduly pushed them. Customers buy them at sight, and, what's more, they come again.

Very satisfactory. We keep the sale in the hands of Chemists, as you are aware.

That's it. It is a big inducement to me and other Chemists to give prominence to goods which the grocer and confectioner can't get at.

I see you haven't included any in this order, Mr. Smartman.

Oh! that's an oversight. I want four boxes at 13s. 4d.—that's the price, isn't it? You see, I shall move some of the Autumn goods now. With other season goods, the four boxes at intervals on the counter will make a nice display.

Thank you.

And now I'll settle your account and get about my other business, and I expect you want to do the same.

Mr. Smartman has got his Pastilles, and we expect will soon want some more.

Messrs. Blyton, Astley & Co.,
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“Palatinoids” must prove a veritable boon.—*The Lancet.*

A perfect Blaud’s Pill this.—*The Chemist and Druggist.*

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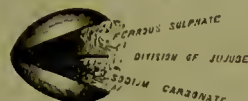


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(By Royal Letters Patent).

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FERROUS CARBONATE.

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FERROUS PHOSPHATE.

We are now posting to every Chemist in the United Kingdom a complete Price List of our products, from which we allow the following discounts:—

Liquors	...	...	...	...	...	...	...	List net price.
“ 56 lbs. at one time	...	...	...	...	...	...	...	5 per cent.
“ 112 lbs. “ “	...	...	...	...	...	...	...	10 “
Cream of Malt, plain and preparations, small	...	...	...	...	...	...	...	26/- per doz.
“ “ “ “ “ per gross	...	...	...	...	...	...	...	24/- “
“ “ “ “ “ large	...	...	...	...	...	...	...	48/- “
“ “ “ “ “ per gross	...	...	...	...	...	...	...	45/- “
Palatinoids	...	...	...	...	...	...	...	10 per cent.
Bi-Palatinoids	...	...	...	...	...	...	...	10 “
Portable Medicine Cases	...	...	...	...	...	...	...	List net price.
Sundry Pharmaceutical Preparations	...	...	...	...	...	...	...	“ “
Fine Drugs and Chemicals	...	...	...	...	...	...	...	“ “

With orders amounting to £20 or more we supply a handsome mahogany case, free of charge, for the convenient and elegant display of our preparations. The case is a desirable addition to any Chemist’s Establishment. Write for full particulars.

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Every physician has one or more prescriptions which he wishes to be administered in the most desirable form. We are prepared to execute orders promptly for “Palatinoids” manufactured according to formulæ submitted to us. The most careful supervision over every detail of manufacture in this department is exercised just as in the manufacture of products bearing our label.

All correspondence relative to these special preparations is considered confidential, and the formulæ submitted either for quotation or manufacture are regarded as strictly the property of the person addressing us. Our patrons can rely upon the stringent protection of their formulæ entrusted to us.

We absolutely guarantee the quality of all products manufactured in our laboratories, and on this basis solicit your patronage. We invite correspondence with Chemists on any matters pertaining to our operations, and will gladly furnish ample samples of Palatinoids, Bi-Palatinoids, Liquors, and Cream of Malt Preparations, upon request.

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THE KEPLER EXTRACT OF MALT.

The many and varied conditions of disease in which the Kepler Extract of Malt as a food is indicated and the benefits which are to be obtained from its use, sufficiently explain the wide popularity it has attained. It is manufactured from barley, and barley only; and our perfected machinery and long experience have enabled us to obtain a product exhibiting all the nutritive principles of the grain intact. The main advantages of a good Malt Extract are that it is highly nutritious, readily assimilated, and rich in that important factor, diastase, which converts starchy food into maltose and other saccharine and easily digested substances. It is consequently an effective aid to digestion, and can be tolerated by the stomach when cod-liver oil alone would be out of the question. Freedom from coarse and irritating elements makes it the safest aliment in inflammatory conditions of disease; it is an admirable demulcent in irritable states of the throat, and in debilitated conditions generally it is unrivalled.



Supplied to the Trade in $\frac{3}{4}$ -lb. and $1\frac{1}{2}$ -lb. bottles, at 20/- and 36/- per dozen. Also in $\frac{1}{2}$ -kilo. and 1-kilo. tins, for export only.

THE KEPLER ESSENCE OF MALT.

In dietetics for the invalid the Kepler Essence of Malt has already won its way to an enviable position, and has distinctly shown its superiority over food beverage. Its superior diastasic property, intoxicating qualities raise it at once far above carefully-prepared fermented malt liquors. We tried it in their clinics that two fluid ounces of peptic value to a pint of the best stout or ale. in mind when recommending or prescribing the sick, or the convalescent. The Kepler when mixed with aerated water and milk. Malt, which will be found to be an agreeable, sweet character of the ordinary Essence, the



all so-called nourishing stouts and ales as a its palatable character, and its freedom from the ordinary level of the very best and most are assured by competent judges who have the Kepler Malt Essence are equal in thera- This is a most important fact, to be kept well suitable diet for the dyspeptic, the ill-nourished, Extract of Malt makes a pleasant beverage We have also introduced a bitter Essence of appetising tonic. To those who object to the bitter will prove a very acceptable alternative.

Supplied to the Trade in champagne pints and quarts, at 14/- and 24/- per dozen.

THE KEPLER SOLUTION OF COD LIVER OIL IN EXTRACT OF MALT.

The Kepler Solution was the first preparation which represented a rational method of administering cod-liver oil. When an oil is given alone, a considerable and prolonged digestive effort is required before assimilation is possible, and in not a few instances it is voided unchanged. Moreover, the digestion is generally soon deranged. The two problems which remained unsolved for so many years were:—(1) how to cover the unpleasant taste of the oil; (2) how to increase its assimilability. Pharmacists tried every possible means to attain these ends, but since they lost sight of the fact that cod-liver oil is a food, and treated it as a drug, they met with only partial success. In emulsions the taste was somewhat masked, but it was found that in the stomach the oil globules coalesced, and unpleasant and nauseating eructations resulted. In the Kepler Solution the oil is actually dissolved in Extract of Malt. It is not emulsified, and no oil globules are visible under the microscope. No unpleasant effects are produced when it is taken into the stomach, but it passes through the pylorus unaffected, and is readily absorbed by the lacteals.



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LANOLIN.

CAUTION.

BENNO JAFFÉ & DARMSTAEDTER, LANOLIN FABRIK

v.

J. RICHARDSON & CO. (LEICESTER), LIMITED.

IN THIS ACTION, which was tried on November 20th last and six following days, before Mr. Justice Romer, his Lordship gave judgment on December 16th, and decided that the Plaintiffs' Letters Patent, No. 4,992 of 1882, for "A New or Improved Manufacture of Fatty Matter from Wool Fat," are valid, and have been infringed by the Defendants by the sale of "Anaspaline," and that the Plaintiffs are entitled to the usual relief against the Defendants as Infringers.

NOTICE IS HEREBY GIVEN that proceedings will forthwith be taken against all persons infringing the said Letters Patent.

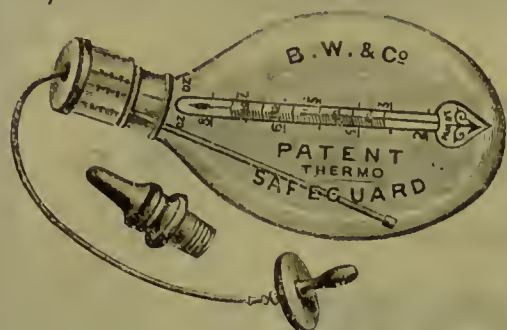
J. H. JOHNSON, SON & ELLIS,

47 Lincoln's Inn Fields, London, W.C.

December, 1893.

Solicitors for the Plaintiffs.

BURROUGHS, WELLCOME & CO., of Snow Hill Buildings, London, E.C., are the Sole Agents or Licensees for the sale of "Lanolin" in Great Britain and Ireland, the Colonies, India, Spain and the Spanish Colonies, Central and South America, Mexico, and the West Indies.

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This Feeding Bottle differs from all others in the fact that a thermometer which instantly registers the temperature of the food is embedded in the glass. It is also graduated in ounces. The Thermo-Safeguard Feeding Bottle enables the nurse to ascertain at all times the temperature of the food given to the child. The bottle is made of flint glass of the most approved shape, and has no angles in which the milk can coagulate. It has the further advantage (since the bottle is marked in ounces) of giving a register of the exact amount of food taken, and thus tends to avert the evil of over-feeding.

"The bottle has a great deal to recommend it."—*British Medical Journal*.

Prices to the Trade, No. I., 10/6 per doz.; No. II., 14/- per doz.; No. III., 22/- per doz.

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